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ABSTRACT

Seventeen papers from the University of South Africa's Conference on Distance Education are presented. They include: "Establishing a Formal Student Support System--Time Is of the Essence" (Karen Hinrichs); "A Student Services Unit in a Distance Education Institution" (Hendrik Gous); "Distance Education and the Community: New Partnerships and Interactions" (Vivien Willers); "Admission, Registration and Examination Procedures in Respect of Postgraduate Degrees and Diplomas" (George Cox); "The UNISA Department of Production--A Functional Link in the Didactic Triangle" (H.P.J. van Niekerk): "UNISA's Scheduling Section" (B.J. van der Walt); "The Role of the Fulltime Equivalent Student in a Distance Teaching University" (P.C. Minnaar); "The Need for a Professional and Effective Supportive Administration in Distance Teaching" (Petrus J. Vermeulen); "The Utilization of Computers at UNISA" (O.V. Kilpert); "The Disabled Distance Education Student: Problems and Possibilities" (Phoebe van der Walt); "Career Guidance for Distance Students" (W.A. van Schoor); "The Promise and Problems of Learning at a Distance" (Desmond H. Crawford-Nutt); "Close Encounters of the Third Kind: The Personal Tutor Scheme in Practical English" (Margaret H. van Zyl); "The Value of Discussion Groups to UNISA Students" (J. Lambert); "Student Support in Distance Learning" (Elsabe Swanepoel); "Essential Andragogic Support for the Absent Student in Distance Teaching" (Adriaan J. Smit); and "Adapting the Organizational Structure of Distance Education Departments to Meet the Demands of Rapid Growth" (Gordon Erens). (LB)

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PAPERS 5

Administration and student support in distance education

DISTANCE EDUCATION IN
SOUTHERN AFRICA:
PREPARING FOR THE 21ST CENTURY

18-21 MAY 1987

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DISTANCE EDUCATION
MAY 1987
CONFERENCE

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PREFACE

The conference papers to be presented at the University of South Africa's Conference on Distance Education are contained in a number of volumes for easy reference. The papers have been collected according to basic themes as follows:

The theory and practice of distance education	**Papers 1**
Issues in education and distance education	**Papers 2**
Media and technology in distance education	**Papers 3.1, 3.2**
Professional education and practical training at a distance	**Papers 4.1, 4.2**
Administration and student support in distance education	**Papers 5**
Systems and strategies in distance education	**Papers 6**

This is Volume 5 of the papers. The table of contents lists the papers in this volume in order of abstract numbers.

In the alphabetical index all participants' names, the abstract number of their paper, the session allocated and the volume in which the paper is published can be found. Not mentioned are papers that may be published in Volume 7 entitled "Late Submissions".

F. van den Bogaerde
CONFERENCE CHAIRMAN

DISTANCE EDUCATION
MAY 1987
CONFERENCE

KEY

ABSTRACTS

1000 SERIES — Participants from Africa and Abroad
2000 SERIES — Participants from southern Africa
3000 SERIES — Participants from the University of South Africa

3100 — Administrative and Professional
3200 — Faculty of Arts
3300 — Faculty of Education
3400 — Faculty of Economic and Management Sciences
3500 — Faculty of Law
3600 — Faculty of Science
3700 — Faculty of Theology

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PAPERS

2002

ESTABLISHING A FORMAL STUDENT SUPPORT SYSTEM - TIME IS OF THE ESSENCE

KAREN HINRICHS
INSTITUTE OF PERSONNEL MANAGEMENT

OBJECTIVES OF THE PAPER

This paper has the following objectives :

(a) To develop the theoretical background and context for the establishment of a formal student support system.

(b) To identify some practical issues of the project of discussion at the presentation of the paper.

PLEASE NOTE : A soft bound file containing the following information will be available at the presentation :

- A comprehensive bibliography
- A copy of the Student Needs Analysis
- A copy of the full report on the Student Needs Analysis.

1. INTRODUCTION

1.1 Perspectives on Distance Education

It is important to begin by outlining the assumptions upon which the IPM diploma is based. The diploma is a correspondence course which takes a minimum of three (3) years to complete. It has been developed within a distance learning framework - a system which has the following characteristics :

(a) it provides the opportunity to learn which previously did not exist due to geographical isolation etc.

(b) it provides the opportunity to study on a part-time basis.

(c) it provides more flexibility compared to traditional methods.

(d) it is not dependent on face to face tuition.

Inherent in most definitions of Distance Education, particularly those which focus on Learning (as opposed to teaching) is the concept of self-direction or the student taking the responsibility for his/her learning. (See for example Neil, M.W. (ed), chapter 1, 1981).

In terms of the IPM diploma, this is a central charateristic which has been developed as a result of a growing awareness of the differences between adult and youth learning.

In this regard, the work of Malcolm Knowles has been particularly useful. The basic differences between adult and youth learning may be summarised as follows :

(a) Difference in self-concept - adults tend to see themselves as responsible, self-directing and independent personalities and they would tend to resist learning under conditions which are incongruent with their self-concept as autonomous individuals.

(b) Difference in Accumulated Experience - adults tend to have a greater volume of experience as they enter a learning situation and for this reason are themselves a rich learning resource for one another.

(c) Difference in Readiness to Learn - a readiness to learn is determined by the demands and ability to cope with the current developmental task. This is important because it is only when a readiness to learn produces a 'teachable moment' that the student is likely to accept the responsibility for the learning process.

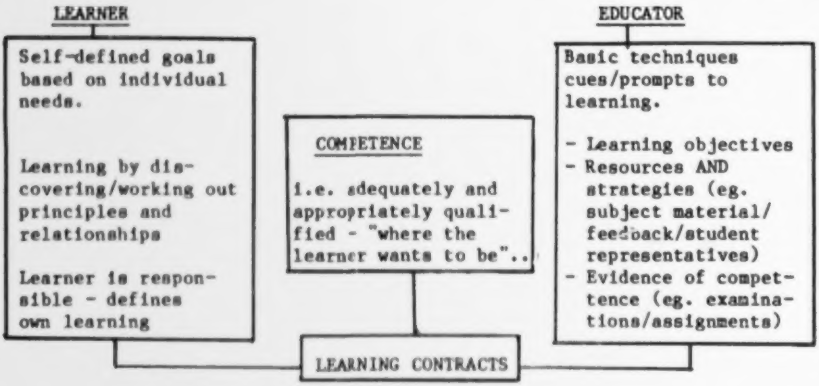
(d) Difference in Time Perspective - the time perspective of adults tends to be one of immediate application, so they engage in learning, largely in response to pressures they feel from current life problems. For adults, any educational activity tends to be problem - centred rather than subject-centred.

The following extract from the IPM Student Handbook serves to illustrate how the above theoretical principles have been translated into a practical distance education methodology :

"The basic method of tuition is the learner-controlled method. This method is based on the principle that adults are fully capable of taking responsibility for their own education and development. The most important characteristic of the IPM diploma is that it provides the means or tools to help adults to educate themselves. These tools may be broadly defined as "LEARNING CONTRACTS".

1. LEARNING OBJECTIVES
2. RESOURCES AND STRATEGIES
3. EVIDENCE OF COMPETENCE

These three basic components emphasise the role of the IPM. It becomes clear that the IPM diploma is structured in such a way that ONLY THE MINIMUM CUES/PROMPTS to learning are provided. Therefore another characteristic of the IPM diploma is the supportive and non-directive role played by the IPM RATHER than the traditional "teaching from the point of view of the expert" role. The relationship between the educator (IPM) and the learner can be illustrated as follows :



LEARNER

Self-defined goals based on individual needs.

Learning by discovering/working out principles and relationships

Learner is responsible - defines own learning

COMPETENCE

i.e. adequately and appropriately qualified - "where the learner wants to be"..

EDUCATOR

Basic techniques cues/prompts to learning.

- Learning objectives
- Resources AND strategies (eg. subject material/ feedback/student representatives)
- Evidence of competence (eg. examinations/assignments)

LEARNING CONTRACTS

The learner is less reliant on the educator and more reliant on him/herself. The role of the educator is to help control the learning process so that the chances of success are high but the learner has the upper-hand and is therefore accountable or responsible ONLY to him/herself.

In summary, the IPM diploma is based on the principle that adults are responsible individuals who are capable of determining their own needs, setting their own goals and evaluating their own progress. The IPM diploma provides the basic tools for the development of competency in the field of Personnel Management and gives learners or students the opportunity to develop as individuals, at the same time.

In other words :

> "If a man does keep pace with is companions perhaps it is because he hears a different drummer. LET HIM STEP TO THE MUSIC WHICH HE HEARS, however measured or far away."
>
> Give a man a fish and you feed him for a day. TEACH HIM HOW TO FISH, and you feed him for a lifetime.

A Student Handbook for Students of the Diploma in Personnel Management : Institute of Personnel Management (Southern Africa) 1986/1987 p 13 and 14).

The use of the principle of compentency models raises the issue of the objectives of distance education and the IPM diploma in particular. IPM serves two markets :

i) its members (in this case, students)
ii) the Human Resources profession.

In terms of these two markets, the IPM diploma has the following objectives :

* To develop basic competence in the Human Resources Field.
* To develop basic skills to prepare students for effective functioning in the field.
* To encourage work world learning by emphasising practical application.
* To develop competent, capable and "trainable" individuals to meet the needs of the profession.

With its emphasis on learner control and competency modelling, the broad aim of the IPM diploma is to improve the quality of the life of the individual, and particularly (in terms of the two markets served) the quality of work life.

1.2 Summarising the IPM Student Profile

Assumptions about the type of student who studies for the IPM Diploma in Personnel Management are based on two questionnaires

i) Student Questionnaire - December 1985
n = 406 - return rate = 16,2%

ii) Student Needs Analysis - December 1986
n = 153 - return rate = 26%

In both cases, the items considered are :

i) Student Questionnaire

Item a : Sex
b : Age Group
c : Race
d : Currently working in a Personnel Department?
e : Is the company sponsoring IPM studies?
f : Concurrent study towards another qualification?

ii) Student Needs Analysis

Item a : Sex
b : Age group
c : Race
d : Geographical area
e : Distance from a major centre
f : Distance from nearest IPM branch
g : Home language
h : Employment status
i : Financial assistance?
j : Hours of work
k : Concurrent study towards another qualification?

Please note : Information on the Student Questionnaire is available on request.

Percentages are rounded and may not total 100%

TABLE 1 : STUDENT QUESTIONNAIRE : SUMMARY OF QUANTITATIVE INDICATORS OF STUDENT PROFILE

ITEM	PERCENTAGE FREQUENCY OF RESPONSES PER OPTION				
	1	2	3	4	5
a	77,3%	22%			
b	33%	45,8%	17%	3,2%	
c	66,3%	30,3%	1,2%	1,2%	
d	68,8%	30,2%			
e	70%	29%			
f	21,1%	78%			

TABLE 2 : STUDENT NEEDS ANALYSIS : SUMMARY OF QUANTITATIVE INDICATORS OF STUDENT PROFILE

ITEM	PERCENTAGE FREQUENCY OF RESPONSES PER OPTION						
	1	2	3	4	5	6	7
a	65%	35%					
b	31%	49%	18%	2%			
c	68%	30%	0,6%	1,3%			
d	49%	8%	14%	18%	3%	1,3%	6,5%
e	42%	12%	11%	35%			
f	61%	9%	9%	21%			
g	50%	22%	27%				
h	91%	2%	-	2%	2%	3%	
i	43%	14%	1,3%	1,3%	40%		
j	91%	4%	-	0,6%	3%	0,6%	
k	87,5%	12%					

Significant points may be summarised as follows :

i) There are more male students than female students

ii) More students fall into the 30-39 age group

iii) There is a preponderance of white students

iv) Approximately 69% of students are already active in the Human Resources field.

v) Nearly half the student population is concentrated in the Transvaal region.

vi) More than a third of the student population reside more than 200km from the nearest major centre.

vii) 61% of the students live within 50km of the nearest IPM branch centre.

viii) The home language of 50% of the students is English, although the home language of 27% of the students is neither English nor Afrikaans.

ix) The majority of students are permanently employed and work a full day.

x) 40% of students receive no financial assistance at all, and 43% are assisted by means of company loans.

xi) The majority of students are not studying concurrently for another qualification.

It is interesting to note that the percentage of female students has risen and the percentage of students who receive financial assistance from their companies has dropped quite considerably.

It is important to note that while a student profile provides useful preliminary indicators in terms of both growth areas for the diploma and needs that are related to a formal student support system, determining the profile of the 'typical' student has been avoided. It is felt that this fictional representation would depersonalise the student population and negate particular problem areas which need to be addressed.

1.3 Why the Need to Establish a Formal Student Support System?

Several factors have contributed to the decision to establish a formal student support system :

i) The developmental process of the diploma has reached the stage where the needs of students can realistically be addressed.

ii) There is a conscious awareness of the growing need to provide relevant and more practically orientated education in order to professionalise the Human Resources Management field, at all levels. IPM, in its role as a service organisation recognises that student support is an integral part of meeting this need.

iii) Organisational and structural factors are making it increasingly inefficient and counter-productive to deal with student needs on an ad-hoc basis.

iv) The need to take cognissance of the contributions of the study of the psychology of learning and the evolution of a uniquely adult approach to learning.

v) The need to set up an effective communication network with the students who themselves play an important role in developing Human Resource professionals.

The goals of establishing a formal student support system have been defined as :

i) To encourage the development of coping skills and strategies within the framework of helping people to help themselves.

ii) To outline the perameters of accountability and responsibility for the learning process, so that all the objectives of the Diploma in Personnel Management may be met.

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2. DEFINING THE THEORETICAL CONTEXT

2.1 The Concept of Quality of Work Life (QWL)

The subjective meaning of work versus non-work activities, the notion of worker participation, exploding the myth of technological determinism and many related concerns have given rise to the questioning of the role and status of human beings in the world of work and the technological environment. These qualitative aspects are playing an increasingly important role in the re-humanising of work. Various authors have addressed the question : What does QWL mean? Common to most definitions is the notion - the 're-humanising' of work. Fuller (1980) describes the objective of the QWL process as : "to make working effective, challenging, involving - to put some quality into human work" (p 50). Orpen (1981) emphasises an implicit assumption about the QWL process i.e. that is morally desirable for work to be such that people enjoy it, if for no other reason than so much time is spent at work. Herrick (1981) differentiates between the means and ends of work - the latter may be defined as human well-being - "we desire and pursue it, not for its consequences but, solely for its own sake". (p. 615)

2.2 Time-structuring - Learning from Alternative Work Schedules (AWS)

"Time is a precious resource, one that cannot be replaced" (Humble, 1980, p. 25) moreover time is in fixed supply. Thompson and Marsha (1984) maintain that the daily tempos of our lives have evolved from the tropical roots of the species and so, practically all bodily processes follow a predictable 24 hour cycle, that is broken into periods which are synchronized by time cues. In industrialised Western culture, it is assumed that these periods are functionally identical. It then follows, that the importance of functional differences has been undermined, if not completely ignored, in our efforts to manage time.

AWS are defined as : 'A deviation from the traditional, standard five (5) day week, that comprises 40 hours of work time'.

The literature on the history of the work and the traditional structuring of time shows that these have been motivated by economic and social trends. Certain assumptions which have arisen as a result of these trends have served to contribute to a depersonalising external locus of control in terms of time-structuring :

i) The five day, 40 hour work week is viable for the entire labour force. Where structural role differences exist, the striving for equity, becomes the striving to be 'the same'. This serves to entrench inequality.

ii) Non-work activities (those that are not "a regular, remunerative activity" Carter, 1971, p. 52) are seen as a reward for work : they are not independent and cannot exist as separate entities.

iii) The use of time is simply a means to an end, so the structuring of work time is controlled by work-givers to meet the demands of production and productivity.

iv) The individual has no intrinsic value - individuals are also a means to an end and are therefore not functionally different.

The study of shiftwork as a common AWS, provides important clues as to how the non-standard structuring of time may affect the individual.

One advantage of shift-work is that it facilitates the worker's positive integration into the work community, which, in turn, may serve as a substitute for the non-available alternative social groups, (due to unsocial work hours). The point is that the substitution is probably of no long term benefit to the individual, since it denies the importance of a non - work identity, such as being a father. Benjamin (1984) notes that shift work often conflicts with natural biological rhythms, which, as Akerstedt and Gillberg (1982) have found, leads to disturbed sleep/wake patterns. It has been found that sleep is a direct function of the time of day, and the probability of waking is highest around noon.

The relationship between shiftwork and absence has been documented by Nicholson et al. (1978) who propose that shift systems cut across temporal scheduling of non - work life. This makes it difficult for those who are required to work at those times, to be integrated into the social life of the community, with a corresponding loss of recreational activities and problems maintaining 'normal' social relations.

2.3 The Relationship between QWL and AWS

One of the factors inherent in the notion of improving the QWL, is the study of the time dimension of work, which Newton et al. (1979) have divided into five distinct variables : the number of hours of work; the time - leisure choice; the distribution of hours during the week; employment versus overtime and the allocation and structuring of life - time hours. However, while the time dimension is seen as integral, its implications for the improvement of QWL are undermined by the lack of a valid conceptual framework for the study of the interrelationship between time structuring and QWL. In other words, by conceptualizing the time dimension as a sub-system of QWL, the assumption is made, that the ways in which work time is structured and by whom, will not substantially effect the criteria of quality.

The assumption has been made that the primary goal of QWL, is to rehumanize work. In other words, to increase the probability that the ends of work will be human, psychological well-being. In this respect, the time dimension has not, hitherto, been more important than other factors in the QWL conceptual framework. This is because the traditional fixed working day is linked, inextricably to the meaning of work and as such, has been a socially sanctioned time schedule. Hence, the traditional fixed work day as been a given or a constant, and, while its effects may not have been cancelled out, it has been perceived as immutable. But, the evidence on alternative work schedules suggests that they are much more susceptible to fluctuations, manipulation and misinterpretation. There are several categories of problems that are associated with alternative work schedules, that have direct causal implications for the QWL process. These categories are :

(a) Temporal scheduling that is not culturally or socially sanctioned.

(b) External locus of control, with respect to temporal scheduling.
(c) Undermining the complexity of organisational change.
(d) Undermining the importance of informal and group processes in the work environment.
(e) Interference with natural biological rhythms.

Brown (1975) in a study of the sociological implications of shiftwork has proposed the notion of the importance of structuring time, for the improvement of QWL :

He maintains that "the individual's activities can be conceptualised as a role system, and ... a satisfactory organisation of the individual's role system is dependent on the presence of certain cultural devices (a socially - sanctioned time schedule and social activities, both work and non-work, which ensure that his role reciprocals will be available as needed.") (p. 238) Further, the values of activities are, to a large extent, socially determined, which implies that responses to non-standard work schedules need to be understood in terms of the broader cultural meaning systems which mediate the individual's experience of his/her work role, and therefore, it is impossible to attempt to improve the QWL without moving beyond the individual level, to discover the values attached to certain periods of time in the community in question. These values, which are largely the result of socialising, must influence perceptions of the criteria of quality.

2.4 The Relevance of the Time Dimension to Distance Education

Since, as has already been mentioned, one of the intrinsic objectives of Distance Education is to improve the qualty of life of the individual, more specifically in the case of IPM, to improve the QWL, and bearing in mind, that the majority of IPM students are employed in permanent, full-day jobs, it follows that the structuring of time (with its attendant problems) to meet all the individual's commitments will be the foundation upon which the establishment of a formal student support will be built.

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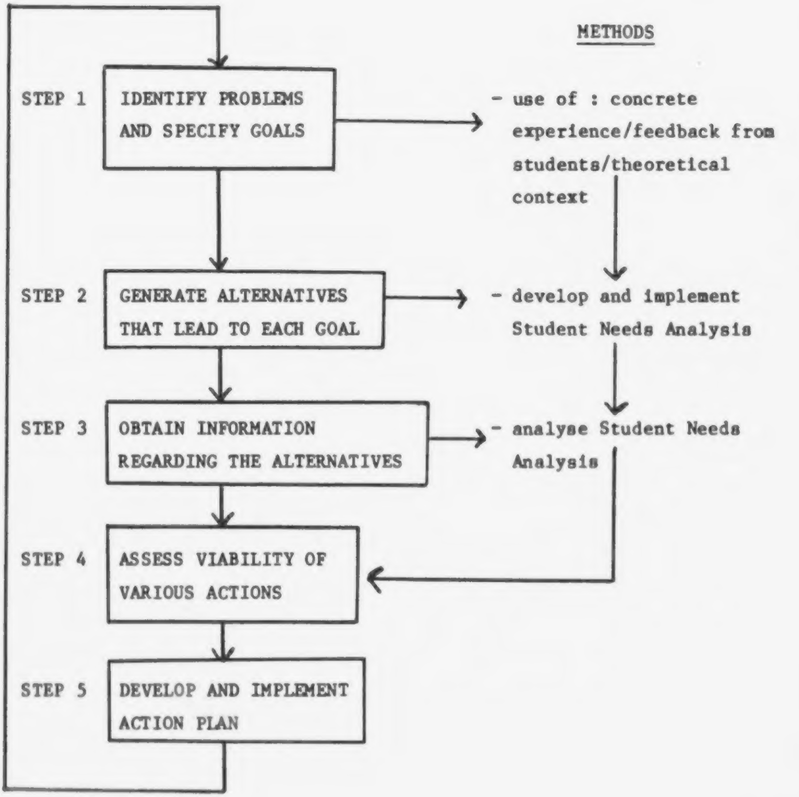
3. PRACTICAL ASPECTS OF THE PROJECT

3.1 THE PROCESS

A general problem-solving approach has been adopted, which may be illustrated as follows :


METHODS
STEP 1
IDENTIFY PROBLEMS AND SPECIFY GOALS
- use of : concrete experience/feedback from students/theoretical context
STEP 2
GENERATE ALTERNATIVES THAT LEAD TO EACH GOAL
- develop and implement Student Needs Analysis
STEP 3
OBTAIN INFORMATION REGARDING THE ALTERNATIVES
- analyse Student Needs Analysis
STEP 4
ASSESS VIABILITY OF VARIOUS ACTIONS
STEP 5
DEVELOP AND IMPLEMENT ACTION PLAN

3.2 The Student Needs Analysis

3.2.1 Development

The Student Needs Analysis was developed as a result of :

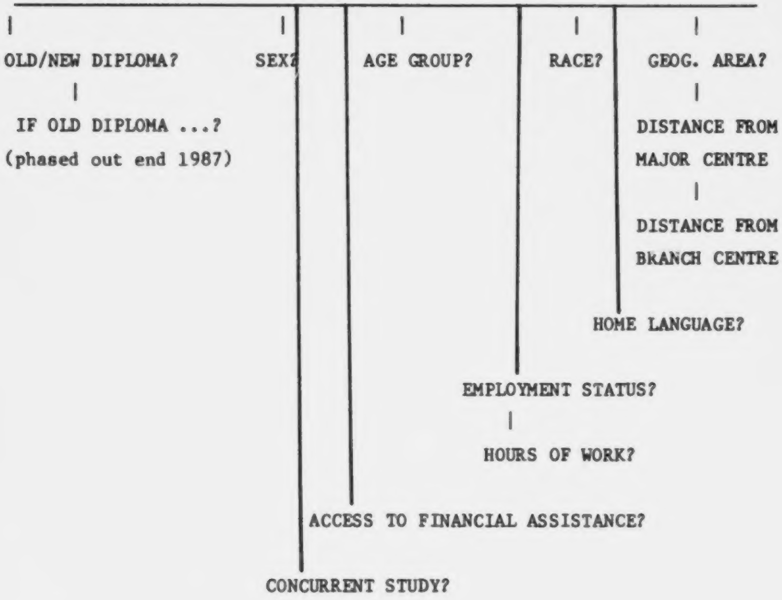
* ad hoc feedback from students about their perceived needs.
* the need to determine the nature of the student population (i.e. a student profile).
* the need to validate the theories/assumptions about adult learning and distance education within this particular student population.
* the need to determine whether the IPM diploma is meeting its goals and objectives.
* the need to generate/"brain-storm" perceived needs and expectations, available resources and potential growth areas for both the students and the IPM diploma.

The Student Needs Analysis was divided into nine (9) sections :

Section 1 - Student profile
Section 2 - Motivation for studying the IPM diploma
Section 3 - Expectations
Section 4 - The correspondence technique and distance learning
Section 5 - Time planning
Section 6 - Resources
Section 7 - Administration
Section 8 - Branch activities
Section 9 - General

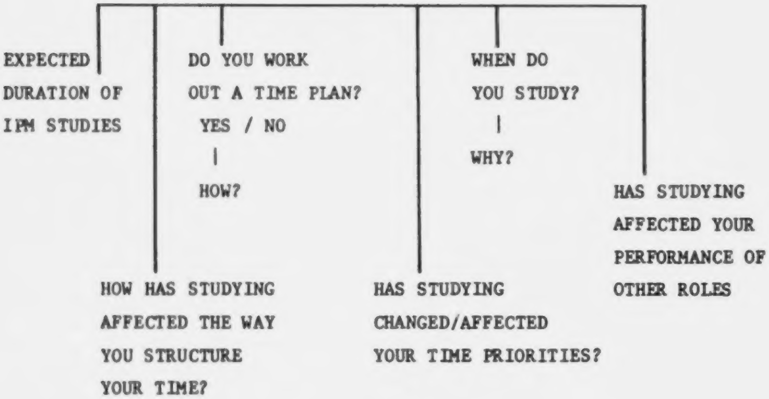
The two sections of particular relevance to this paper may be illustrated as follows :

1. STUDENT PROFILE


OLD/NEW DIPLOMA?
IF OLD DIPLOMA ...?
(phased out end 1987)
SEX?
AGE GROUP?
RACE?
GEOG. AREA?
DISTANCE FROM MAJOR CENTRE
DISTANCE FROM BRANCH CENTRE
HOME LANGUAGE?
EMPLOYMENT STATUS?
HOURS OF WORK?
ACCESS TO FINANCIAL ASSISTANCE?
CONCURRENT STUDY?

---

5 TIME PLANNING


EXPECTED DURATION OF IPM STUDIES
DO YOU WORK OUT A TIME PLAN? YES / NO
HOW?
WHEN DO YOU STUDY?
WHY?
HAS STUDYING AFFECTED YOUR PERFORMANCE OF OTHER ROLES
HOW HAS STUDYING AFFECTED THE WAY YOU STRUCTURE YOUR TIME?
HAS STUDYING CHANGED/AFFECTED YOUR TIME PRIORITIES?

3.2.2 Implementation

The Student Needs Analysis was distributed to 600 students with their results from the October 1986 examinations. It was felt that this group was an adequate size for a pilot study and that these students would be more motivated to complete the needs analysis. The needs analysis was anonymous.

3.2.3 Analysis

In order to highlight the most important issues for this paper, quantitative analysis on Sections 1 (see 1.2) and 5 have been presented. Since the needs analysis was developed as a preliminary method of data collection i.e. a pilot study, most items request a limited free response (as opposed to a forced choice response). This raises obvious difficulties in analysis, but it was felt to be important to gain as much input as possible. Since all the items are relevant (to a greater or lesser extent) to the establishment of a formal student support system, a complete analysis (quantitative, qualitative and validity study) will form the presentation and comments and criticism will be welcomed.

3.3 Summary of Results (Time Planning)

Notes : i) The return rate was 26%. This represents a predictably low return rate, in terms of the method of data collection, but is nonetheless significant, in terms of the nature of the data collected.

ii) Percentages are rounded and may not total 100%

TABLE 3 : SUMMARY OF QUANTITATIVE INDICATORS ON SECTION 5 - TIME PLANNING

NATURE OF ITEM	DESCRIPTION OF OPTIONS	% FREQUENCY OF RESPONSE FOR OPTION
1. Expected duration of IPM studies?	a) 3 years	20%
	b) 4 years	35%
	c) 5 years	23%
	d) 6+ years	22%
2. Do you work out a time-plan?	a) Yes	51%
	b) No	51%
3. When do you study?	a) On an ad-hoc basis	9%
	b) When I feel like it	3%
	c) During the day	10%
	d) During the evening	39%
	e) Earling morning (before 8am)	11%
	f) Over the week-end	28%
4. How has studying affected the way you structure your time?	a) Positively	7%
	b) Negatively	50%
	c) No effect	44%
5. Has studying changed/affected your time priorities	a) Positive change	5%
	b) Negative change	58%
	c) No effect	44%
6. Has studying affected your performance of other roles?	a) Positively	48%
	b) Negatively	22%
	c) No Effect	30%

3.4 What do these results indicate?

These preliminary results highlight a number of important points which will be further discussed in the presentation :

i) The expected duration of IPM studies is fairly evenly distributed on the range of three (3 - the minimum period) to six (6) or more. Experience has shown that most students choose to do three (3) subjects in their first year os study. This leads us to predict that the average duration will be five (5) or six (6) years.

ii) An alarmingly high percentage of students indicated that they did not plan their studies at all (47%). (Even though many students said that they did plan, further qualitative analysis will show that the planning process most often, either failed because of other commitments or was to simplistic to have any long term value).

iii) Predictably, more students study during the evenings and over week-ends. This result establishes a firm link between the time dimension and the goals of improving the QWL and validates the theoretical context.

iv) Only 7% of respondents felt that studying had affected the way they structured the available time, positively. Although half the students felt a negative effect, nearly half had felt no effect at all. (In the the qualitative analysis, this dimension will be related to the fact that nearly half of the students do not plan their studies anyway).

v) More than half of the respondents felt that studying had negatively affected their time priorities. This means that students have had to compromise or sacrifice, (presumably) leisure or non-work activities. This factor emphasises the problems of alternative work schedules which have causal implications for the QWL process.

vi) A surprising initial result has been that students perceive that studying the IPM diploma has affected their performance of other roles (primarily the work role) in a positive way (48%). This result is surprising in terms of the difficulties and changes students have experienced, according to the other results in this section. Further analysis is needed to determine how this phenomenon operates in relation to the theoretical context and therefore, the needs which must be addressed in the establishment of a formal student support system.

4. CONCLUSIONS

This paper has attempted to construct and develop a conceptual framework for the establishment of a formal student support system.

It has been shown that the time dimension is critical because of the nature of distance education and because of its relationship to the quality of work life.

A preliminary quantitative analysis has emphasised this relationship and highlighted areas for further analysis which will clarify the needs of students and form the basis of a practical action plan.

What is clear, is that it is important not only to identify and clarify student needs but also to develop a sound conceptual framework, both of which will facilitate the establishment of a formal student support system that effectively meets the goals of adult learning, distance education and the IPM diploma, in particular.

3101

A STUDENT SERVICES UNIT IN A DISTANCE EDUCATION INSTITUTION

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University of South Africa

1. Introduction

The word "distance" in Distance Education literally means no lectures and no physical presence of students. When the meaning of this word is extended it will also encompass a unique combination of didactical methods in order to reach and to accommodate a wide range of students. But to accommodate the student in Distance Education you will have to understand and accept him fully in terms of his cultural, personal, physical, circumstantial, intellectual, occupational and developmental life.

2. Diversity in the Distance Student Population

2.1 Different populations

When you enrol 84 000 students mostly from the Southern Africa region, but also a few hundred from overseas, you will end up with a true cosmopolitan population ranging from 18 to 88 and occupationally stretching over the whole white collar spectrum into the blue collar area.[1]

A classification of Unisa (University of South Africa) students in terms of the four main racegroups and the division male/female shows sizeable numbers in each group which on its own would allow a fair sized to large university (see table 1). The female representation is fairly high (42%) when compared to that of an attendance university. The percentages of Asian and Black female students enrolled are even higher than this average. Since 1976 the growth of non-white student populations, especially the Blacks, have far exceeded that of the Whites.

Table 1

Student population: Racegroups, Male/Female

Racegroups	Male		Female		1986		1976	
Asian	5249	56,1	4113	43,9	9362	11,1	3362	7,6
Black	11823	56,5	9118	43,5	20941	24,9	5590	12,7
Coloured	2578	62,0	1578	38,0	4156	4,9	1770	4,0
White	29052	58,6	20529	41,4	49581	59,0	33386	75,7
Total	48702	58,0	35338	42,0	84040	100,0	44108	100,0

2.2 Coming of Age in Unisa

2.2.1 Changing into adulthood

The most interesting division of numbers comes from the age-group distribution of Unisa students.

The junior adult phase covers late adolescence and early adulthood. Developmentalists view middle 20's as a critical age. This is the time when establishment in a career gets going.[2] The age range 17 to 24 may be regarded as the bridge between childhood and adulthood. It is a developmental phase which involves growth to intellectual, emotional, social or physical maturity. The socio-cultural environment in which the young person finds himself will therefore be a determining factor.[3]

Table 2

Age-group	M		F		S		Stages
	N	%	N	%	N	%	%
17-24	10509	56,6	8047	43,4	18556	22,1	22,1
25-29	15573	62,2	9474	37,8	25047	29,8	
30-34	10541	60,2	6957	39,8	17498	20,8	50,6
35-39	5981	56,2	4658	43,8	10639	12,7	
40-44	3202	51,8	2974	48,2	6176	7,3	
45-49	1599	47,3	1781	52,7	3380	4,0	24,0
50-54	774	46,8	879	53,2	1653	2,0	
55-59	337	46,2	393	53,8	730	0,9	
60-	186	51,5	175	48,5	361	0,4	3,3
Total	48702	58,0	35338	42,0	84040	100,0	100,0

According to table 2 22,1% students are 17 to 24 years of age. This is the life-stage in which most attendance university students will be studying their undergraduate degree programs or ealy post-graduate courses. Immediately thereafter at 24/25 years of age these students will find themselves in a job situation and at the crossing into the next life-stage.

Unisa students in this age group consist of economically deprived young people who cannot afford to study at an attendance university, or those who immediately after school or national service joined professions for which they need further academic training, e.g. articled clerks and services trainees, or early drop-outs from attendance universities, or students whose parents, for whatever reason, want their children not to be part of the on-campus society, or students who missed the cut for selective programmes, e.g. medicine, at attendance universities. A reasonable number of students in this age-group view themselves as full-time students of which most do their daily studies in the Unisa libraries.

Many of the younger students are attendance students who enrol for one or more subjects at Unisa for non-degree purposes in order to complete or supplement their basic studies. The proportion (43,4%) of female students in this group is also slightly higher than the proportion (42,0%) of females in the total student population.

2.2.2 The pre-midlifers

The middle 30's is a critical transitional point in a person's life span.[4] The establishment stage has reached a time of consolidation or of advancement after having stabilized in an occupation.[5]

At Unisa the pre-midlife group can be identified as students in the age range 25 to 34. They are mostly students who were study-passive after leaving school, or drop-outs from attendance universities after a few years of inactivity. Some are post-graduate students coming mostly from other universities or students in the advanced stages of their studies at Unisa.

Most of the pre-midlife students' approaches to their studies reflect the life-stage in which they find themselves. This is early adulthood when family life will be established and their social world expanded. The student now has to master new roles, meet expectations and develop new personal styles and self-concepts in order to satisfy his strong motives for achievement power, creativity and self-actualization. It could be that in this phase of so-called midlife-adolescence a student's whole value hierarchy and self-definition will be directed by his reliance on physical powers and social events.[6] Further study may thus become a very useful partner and play an important role in saving, accommoda-ting and guiding the student from a possible settlement to active growth. More or less half the Unisa student population (50,6%) can be classified as within the pre-midlife stage (see table 2).

2.2.3 The midlife crisis!

There are more middle adulthood students at Unisa (20195) than the total number of students at each of the attendance universities of South Africa except for the University of Pretoria. One out of every four Unisa students (24,0%) is a midlifer.

In midlife there is a contraction of the life cycle. In terms of his environment and social world the person have settled down completely and may have reached a more balanced situation in his personality system.[7] There are no more challenges left and he has accepted his future and the process of aging. He no longer advances in his career. Also, his children have reached adolescence and are leaving home. Socio-psychological concepts and the way in which people internalize their expectations of the future and the role they wish to play have become important. The battle between deterioration and growth has started because throughout the life span there is a continuing need for growth. The person who has reached middle age feels that growth can only be achieved through a reorientation of his life-goals, self-conception and motivation. For many this includes further study and higher education as proved by Unisa enrolments. Distance Education is the theatre in which they will have to play their new-found roles fully.[8]

2.2.4 The senior student of Distance Education

The older student, the person past the age of 50, represents 3,3% of the total Unisa student population (see table 2). In 1986 this meant 2744 students, enough to fill a small sized university. The majority were women students (52,7%), a trend which started in midlife between ages 40 and 45, when female student numbers surpassed male student numbers. Older women are probably more inclined than older men towards intellectual challenges!

The period of senior adulthood is viewed by many as the retirement period.[9] For many older persons this is a time to relax, to romanticize and to take life easy. Maybe this is a reason why women students outnumber men students - men are either too fully occupied by their senior or management positions in the occupational world or have "retired" from the rat race in order to take it easy. Women would be more concerned with life and growth.

Many in the very senior life phases would become excessively preoccupied with problems of health and income. Others may have to adapt to losses, e.g. work, spouse, friends, physical abilities, power and proficiencies. Life for some has become a problem of survival. The life stage 50+ to retirement can be viewed as a preparation phase for the latter. The person immediately past his middle years would therefore become more aware of these problems and will be looking towards a means of overcoming deterioration and for growth. He will have to cope with ever changing and new life situations, a loss of energy, a feeling of being superfluous and even increased isolation and anxiety. His adjustment needs are therefore stronger than those of adults in the middle-aged group. He will have to look for a new identity and a place in the community previously secured by his job or business. He also experiences a need to be recognized and appreciated. Higher education may therefore offer him new outlets and rewards for his skills and interests.

In terms of background, circumstances and needs the senior students represent a diverse population, also with a large reservoir of experiences and possibilites. This is a life-stage in need of more exploration to understand how Distance Education can be adjusted to accommodate students within it.

2.3 A full range of occupations

A classification of 1986 Unisa students in terms of the economic sector and occupations is displayed in table 3.

Table 3

Economic sector and some occupations of 1986 Unisa students

Economic sector

	N	%
Agriculture	1033	1,2
Mining	1795	2,1
Construction	805	1,0
Manufacturing	5177	6,2
Transport	2184	2,6
Finance & Business	8593	10,2
Personal Services	1623	1,9
Recreational	762	0,9
Hospital & Health Services	6108	7,3
Education: Primary	7290	8,7
Secondary	12218	14,5
Tertiary	3079	3,7
Welfare, Religious Services	1448	1,7
Public Administration	11384	13,5
Other Professional Services	7809	9,3
Unknown	12732	15,1
Total	84040	100,0

Table 3 continued / ...

Table 3 continued

Some occupations

	N	%
Accountants	3602	4,3
Computer Scientists	1800	2,1
Jurists	732	0,9
Nurses	5630	6,7
Personnel Officers	1115	1,3
School Teachers	19630	23,4
Managers	2420	2,9
Administrative	12785	15,2
Engineers & Technicians	3586	4,3
Policemen	1041	1,2
National Service	1849	2,2
Housewifes	4035	4,8
Full-time students	2589	3,1

Education seems to be the most important sector with one out of every four students (23,4%) a teacher in either primary or secondary education aiming to better their teaching qualifications or to obtain degrees in their quest for promotion. Finance, Business, Manufacturing, Public Administration an Professional services are other important economic sectors where students are encouraged to further their studies. Most of these students, 15,2% of the total student population, occupy administrative positions. Nursing (5630 - 6,7%), households (4035 - 4,8%), accountancy (3602 - 4,3%) and engineering or technical jobs (3586 - 4,3%) occupied large numbers of Unisa students. As many as 2589 (3,1%) students were classified as full-time students. A reasonable number of academic programmes offered at Unisa are tied to the professions either directly influenced by the profession, eg. Accountancy, Law, Teaching, Nursing and Police Science or indirectly according to the choice of the students. The occupational factor would therefore be a strong motive when a curriculum is devised to accommodate the student within Distance Education.

3. The life-space of the distance student

The problem areas of the Unisa student population identified in the previous section by means of a classification into race groups, and occupations show that the student in Distance Education finds himself in an environment where there is an interrelationship between his personality development, occupation, culture, home and studies. He may also have to adjust to multiple responsibilities if he enters a study programme.[10] The personal experience and growth within his life-space and the roles that he play, e.g. his occupational involvement, domestic responsibilities and established social ties will exert strong influences on his academic studies. A harmonious co-ordination between these components is essential if the student is to study successfully. For instance, a student who already holds a job may have to decide what effect his proposed studies will have on his occupation. In other words: is he studying to improve his qualifications for his present occupation or is it purely for personal enrichment or in order to make a career change? His academic performance may be impeded should he fail to settle these questions in his own mind. The student's job situation can also be a cause for stress, particularly in the case of a student who is studying to qualify for a better job.

If a student has to cope with domestic problems it is not possible for him to devote all his attention to study. The nature and origin of domestic problems may vary widely and range from problems between husband and wife as a result of maladjustment in marriage to the situation where the husband's (or wife's) study in itself causes tension in the home because he (or she) is spending too much time on study. More than half (52%) of Unisa's student population are married.

Distance Education therefore has a responsibility to assist the student in finding an adequate reciprocal interaction between these components by accommodating him in his role as a student.

Aspirations and intellectual abilities are possibly the two main power factors in a student's life. The young student will probably find himself in a situation where most of his aspirations with regard to a future career will start to develop. From this may arise a complex world in which he will have to make many important decisions. If he wishes to build a career his aspirations will be influenced by these decisions and the contextual framework in which he finds himself. The young articled clerk who has enrolled for a BCompt degree would like to impress his employer by qualifying as an auditor in the shortest possible time. Although he is consistent in his aspirations he will still experience his life-space as the world in which he lives as a young adult.

The older student phasing into midlife enters a new world where new aspirations are born. His life-space and the marginal position in which he finds himself creates a much more complex situation. In his search for a more meaningful accommodation of his aspirations he may, however, encounter a diversity of problems. Assisting this student to experience study as a growth factor calls for a recognition of his complex life-space.

Although Unisa has succeeded in accommodating all cultural, race and political groups on an equal opportunity basis, the complexity of the South African cultural and political systems is also a cause for student adjustment problems. Language study medium, finding a career, free movement for the student within the system, established social customs and financial support are important factors which make it difficult for many students to adjust fully.

4. Why do students seek counselling and assistance in Distance Education?

The Student Services Bureau of the University of South Africa assisted 3470 students during 1986 in choosing a career or adjusting to Distance Education. Interviewing 2219 students and corresponding with 1251 students presented the Student Services Bureau with a fair spectrum of students and their problems. An even number of students older and younger than 30 consulted the counselling service of the Bureau. The Student Services Bureau is therefore well acquainted with the problems of students in all life-stages as presented in the previous sections of this paper. Many students (± 1500) phoned the Student Services Bureau to discuss their choice of subjects, the compilation of a curriculum or study problems. The latter is the concern of at least 10% of the students who make use of the telephone as a medium for counselling. Some of these conversations lasted for longer than 15 minutes. A fair number of these calls refer to serious study/adjustment problems.

The following is a distribution of the main reasons why students contacted the Student Services Bureau either by means of personal visits or correspondence:

Students interviewed

1.	Choosing a career or subjects		56%
	a. Compilation of a curriculum	17%	
	b. Uncertainty about post-graduate choice	6%	
	c. An idealistic view about a career	11%	
	d. Status or wealth as a motive	14%	
	e. Making a complete change	4%	
	f. About the viability of subjects	4%	
2.	Adjustment to Distance Education		44%
	a. Basic planning and study techniques	41%	
	b. Serious motivational/adjustment problems	3%	

Student correspondence

1.	Choosing a career or subjects		79%
	a. Compilation of a curriculum	44%	
	b. Inability to choose a career	30%	
	c. Changing career or curriculum	5%	

2. Adjustment to Distance Education		21%
a. Basic planning and study techniques	11%	
b. Serious motivational/adjustment problems	10%	

The above reasons is a general classification but they are not as clear-cut as it seems. A student who approaches the Bureau for assistance in changing his subjects may conceal a serious motivational problem. A midlifer may seek the help of the Bureau in finding "worthwhile" subjects. During the counselling process it becomes obvious that he is concerned about his future and is looking for a growth experience. Assisting him to find direction and to develop fully becomes important. The guidance action may call for adjustment or support programmes and also to keep track of his academic experience.

5. Operating within a Distance Education Institution

Counselling the Distance Education student and for much the older person to reorientate himself and set up a new life structure through higher education is a challenging and fascinating task. It not only concerns his choice of a career or courses but also how to cope with his studies and learning in the distance teaching mode. The counsellor must introduce all the possibilities and facilities of Distance Education to the student and relate these to his expectations, ambitions, activities and life style in order to accommodate him fully.

In order to be fully operational within the Distance Education Institution a Student Services Unit should offer a complete range of services when planning a career guidance program. These services include career advising, career counselling, academic adjustment and support.

Career advising, although somewhat limited, can be viewed as assisting students making choices and translating these choices into educational goals and programs. Compiling a curriculum and relating it to career opportunities would be an important starting point for career planning by student and counsellor.

Career counselling is more dependent on psychological procedures to assist students with self-evaluation and recognition of capabilities and interests. Although a variety of testing instruments are available for a career counselling service there is a strong need for special techniques such as self-evaluation scales to be used in counselling distance students or older persons. The development and construction of measuring instruments should be part of the research program of the student services unit.

Academic adjustment and support are important functions in any action which concerns student development in Distance Education. Learning in the distance teaching situation calls for refined study skills, especially when reading and writing. Orientation programmes, reading courses, materials and programmes on study skills should be available to all students and devised to accommodate all levels of the student population. Academic support programmes may intrude the teaching function of the University but the basic objectives would be rather to probe and guide the student in approaches and methods than to transfer subject content. Academic support programmes should be part of the guidance concept in Distance Education because of the diversity of the student population and the complex casting of roles within the life-space of the older student. Probing, finding and planning the basic learning pattern relate strongly to guidance and developmental actions. This is also a good reason for a strong relationship between the counselling and teaching functions at the Distance University.

A Student Services Unit can only function completely if its services to students and research on the student are accepted at all levels of the University. The needs, growth and learning styles of a diverse student population are important to the university, its administration, planning actions and management. The Student Services Unit has an important role to play in this regard and more so in the sensitive area of distance teaching.

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DISTANCE EDUCATION AND THE COMMUNITY: NEW PARTNERSHIPS AND INTERACTIONS

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1. Introduction

The title of my talk today is "Distance education and the community: New partnerships and interactions". To begin with, let us consider why new partnerships and interactions are necessary. We are all aware of the many group identities which exist in our mixed society and the important part universities can play in dealing with these identities - in "bridging the gaps".

Before proceeding further, let us consider the meaning of education. Kaplan (1985) quotes Aristotle on this topic:

> The state is a plurality which should be made into a community by education. (p. 30)

Kaplan also proposes that education must recognise its function in a democratic society:

> I believe that we have to educate for democracy not only by handling ideas, but also by giving our students a deep awareness of the role of ideas in making changes in society, as well as a deep awareness of the role of society in making the generation of ideas possible. (p. 32)

It takes a considerable part of the resources of a society to bring itself up to a point where it can make use of the pool of knowledge that is now available. The expansion of Distance Teaching Universities (DTU's) has, in Van As' (1983) opinion, been partly caused by the demand for educated manpower, educational equality and upward social mobility. Guri (1986, p.60), in a similar vein, proposes that "The emergence of DTU's was a partial and alternative answer to the growing demand of university level education for populations which otherwise would be denied the opportunity to study further". DTU's have played an increasing part in opening up study opportunities for new target groups (Van As, 1983). Adult students, significantly older than students of traditional institutions, constitute a large and growing segment of the students body of DTU's today.

We do not need to focus on the question of grounding or cultural factors, but to recognise the fact that our concern lies in what is achieved and what is likely to be achieved. Ben Peretz (1985) refers to research which shows that the more years of study you give a person, the better are his chances of fulfilling a useful role in the community, the work place and the family. An astute teacher once gave this advice to our matric class: "With education you can go a very long way, but to get places without it really takes brains!" South Africa will increasingly depend on the capacity of its people to make effective use of high technology. It is clear that in a changing and developing South Africa, education is an important part of the eventual solution.

I do believe that Distance Education can contribute to a closer relationship between higher education and the community - it can open the road for those, who for some reason, have not had the same opportunities as others . This does not, however, have to be at the price of excellence. It is not a question of lowering the standards, but rather of adapting our educational system to cater for the heterogeneous needs of its clientele - in the face of the changing social and political circumstances in our country as a whole. This does not mean that the university must give up its traditional functions. Taler (1985) suggests three strata for interfacing between the university and the community:

> * Prevention - investing more effort into preventing situations or social problems from occurring;
>
> * A community approach to intervention: Developing the sense of responsibility in the community; strengthening the community, and seeing the community as a very important element;
>
> * Dividing society according to populations at risk and populations which will need special priorities in order to be able to function at a higher level. (p. 17)

Up to this point our attention has been focussed on the relations between higher education and the community. The traditional functions of universities need to be revieved and performed more adequately in the light of changes taking place i society. In our search for a solution let us at least lear from others' experiences. For example, new formulae wer devised by the University of Haifa for using education to narrow the social gap. A long series of suitable projects fo "Bridging the Gap" in the field of education were conceived To quote Dr Adler (1986):

> Innovative views were suggested within the growing recognition of the Universities' function in providing skills, know-how and values essential to political, cultural and social development. (p. 42)

2. The Israeli Experience

2.1 Background

Let us look a bit more closely at the events leading up to the introduction of the "Bridging the Gap" Programme. A great immigration wave hit the State of Israel between 1950 and 1960 with the Jewish population doubling from the initial 671 900 living in the country in 1948, to 1 324 000 in 1951 (Adler & Beserman, 1984). New development towns were built in a hurry, often without proper plans for adequate community infrastuctures (Rafaeli & Adler, 1979). The new immigrants needed a roof over their heads, and work, so defence and housing became the immediate priorities rather than education. These hurried solutions caused economic and social gaps between the well established communities, on the one hand, and the populations of developing towns and deprived neighbourhoods, on the other hand. Furthermore, Adler and Beserman (1984) point out, the poorest and least educated often found themselves "face to face" with a society possessing technological skills and levels of efficiency not always available to the newcomers.

2.2 The "Bridging the Gap" Programme, University of Haifa

Against this background, the Unit for Bridging the Gap was established at the University of Haifa 12 years ago. It was founded in 1974 to enable the residents of develped towns and disadvantaged neighbourhoods to receive a higher education as well as training for leadership in their home communities. The special Community Leadership Programme was initiated and set up by Dr Adler. The underlying philosophy was that "education and training could be used as a tool for building local leadership" (Adler, 1986,p.42). The programme is designed to improve the general quality of life and level of services in developing areas. Local public key figures were offered the opportunity of university education, on the assumption that by raising the level of knowledge, local leadership will be strengthened (Rafaeli & Adler, 1979). The candidates were initially recruited through personal contacts. By furthering those individuals who are relatively advanced and successful, it is expected that they will become the "elite strata" of the communities to which they belong. In Dr Adler's (1986) own words:

> When given the opportunity to "cross the bridge" themselves, they are designated to become the "bridge" for others. (p. 42)

These leaders were in need of higher education to raise the level of their accomplishments in the performance of their duties. Appropriate arrangements were made (including scholarships, tutoring and academic counselling) to enable them to study. Once admitted, Dr. Adler (1986, p.43) explains, participants could choose any field of study offered by the university relevant to their calling, such as Social Work, Education, Sociology or Economics. They receive all the guidance which they require (Rafaeli & Adler, 1979), especially on admission to the University. Because of work and family commitments, their studies are concentrated into three days a week, with the duration of the study extending beyond the usual three years. The initial lack of completed education does not hamper the students provided they have the potential to meet standard academic requirements.

To illustrate Dr Adler (1986, p.43) refers to a student who was a Mayor in a certain town, who struggled on a "double front - both in the municipal elections and for his BA Degree". He succeeded in both endeavours! Notice the similarity to the learning situation for the majority of students studying at a distance university such as the University of South Africa (Unisa).

During their years of study, the students commit themselves to tutor, for at least four hours a week, a disadvantaged pupil or, for example, a soldier. They might also be called upon to help organise social, cultural or sports activities (Adler & Beserman, 1984). As graduates, they also commit themselves, for each year of funded study, to serve in a developing town or deprived urban area (Rafaeli & Adler, 1979). It has been found in practice that well over 85% have indeed made use of their educational-professional advancement to enrich the life of their communities (Adler & Beseman 1984).

Apart from family and job commitments, these students often come from backgrounds where a university education has low priority. In spite of this, the results are good, with grade averages amongst the highest (Adler, 1986). Here Dr Adler compares the low drop-out of 12% with the University of Haifa's general student-body drop-out average of 25%. She feels that two strong motivating factors are, firstly , the desire to raise the level of accomplishment, and secondly, the possibility of losing face in the community by failing exams.

Today the Unit is administered by students who were assisted by its service. A total of 3 500 students have been able to undertake university studies with the help of the Unit; 2 000 of these students have completed undergraduate degrees, and more than 200 have gone on to enrol in advanced degree programmes (David, 1985).

Dr. Ishay (Adler, 1986) researched the effects of the Programme. I quote some of her major findings:

* Graduates reflect that section of the population with which the Unit is concerned...;

* Almost all the students fulfil their com-

> mitment after graduation, and reside in developing areas, where they represent the educated leadership;
>
> - University studies have a significant impact on their lives, psychologically raising their self-esteem and financially improving their standard of living;
>
> - The level of their public involvement is extremely high... - mainly within the cultural and educational fields, but also in political and social activities;
>
> - This research also reveals the possibilities for community transformation by means of the bridge that university-educated people have built and extended from the centre to the periphery. (p. 46)

The princip~~al~~le of reciprocity is the basis of the ideology of the Bridging the Gap Unit. In Adler & Beserman's (1986, p.11) own words it "allows the students to accept financial help not as recipient clients of welfare, but as active future partners in the historical process of developing the country".

Here, I believe, lies the crux of the matter - the students are made to feel they are responsible citizens. Menacher & Wynne (1982) propose that one of the objectives of higher education should be to graduate students who are able to be of service to their communities. They even went as far as to advocate that all students should earn some academic credit through unpaid community service. The School Code of Illinois requires schools to instruct students in such matters as citizenship and responsibility (Menacher & Wynne, 1982).

2.3 Project Renewal Programme

Let me mention another programme in Israel for the advancement of education in deprived neighbourhoods - on all levels and all ages - the "Project Renewal Programme. About 600 community leaders from 40 different Project Renewal neighbourhoods take part in a guided academic study programme in 14 classes throughout Israel. These students, with less than 10 years of formal education and no matriculation, first take an intensive preparatory study programme in advance of academic courses. They then undertake their university studies with intensive tutorial assistance within a group framework. This provides reinforcement and support for coping with course material (personal interview at Bet Rutenberg Institute in Haifa, 1986).

The students attend classes for 8 hours every Sunday and have face-to-face tuition. These sessions are more like high-school classes, with students taking anything up to eight years to complete a degree. The course material and tutors are provided by the Everyman's University. The Everyman's University has a "free admission" policy. The free admission came as an answer to the needs for broader access to higher education and for greater equality of opportunities - hence the name Everyman's or the Open University. The underlying philosophy of this policy is based on the presumption that several sectors of the population were prevented from studying at university level, not because of any lack of academic ability, but because of various circumstances beyond their control.

Other arguments in favour of education being used as a tool for social betterment have been put forward. Kaplan (1985) suggests that education is an essential avenue for social betterment, not only for the person himself, but also for his society. He feels that we need to provide the opportunities and enhance the capabilities of others to take advantage of the opportunities. This can be interpreted in the light of the previous dicussion on the interrelationship between education and society. We need to acknowledged the need and then determine who is to be educated. I do not believe that this "Bridging the Gap" experience can be exported or transplanted, but it can provide inspiration and guidance.

3. Possible Networks for Interaction in South Africa

In the light of the previous discussion, we need to consider where our University fits into the scenario for contributing more directly to a closer relationship between higher education and the community. I should like to suggest mechanisms of interaction and participation for enhancing Unisa’s relevance and for making more effective contributions to the process of socio-economic development, particularly at local and regional levels.

Because a strong motivating influence for many students is the honoured and justified advancement of self-interest and the desire to move out of their environment (Menacker & Wynne, 1982), many of our graduates coming from rural areas are drawn to the cities and towns. It is here that they are able to compete for preferred positions within our socio-economic system. Now, I believe, one of the basic objectives of higher education is to graduate students who are able to be of service to their families, local communitites, and country. Menacker & Wynne (1982, p. 381) suggest that it is hard to imagine any group or institution enduring for long without its members being willing occasionally - or perhaps even frequently - "to dedicate some of their time to community or group service". We need to **help people within their environment to change it,** and provide them with the tools which would enable them to change it. The educational system we create needs to be appropriate not only for an urban economy, but for a rural economy. Furthermore, it needs to avoid alienating people from their existing culture.

One of the many problems of underprivileged, developing regions in South Africa is the lack of competently trained local leaders. By raising the level of knowledge through higher education I believe that local leadership can be strengthened. The right people, who are capable of benefitting from higher education, need to be selected. Rosenman (1982, p.72) refers to recent research by Levine where he concluded that the vast majority of contemporary university students "are motivated by competitive vocationalism", but, that there are many who have broader social concerns - they opt for roles through which they can contribute to the well-being of others. Furthermore these local figures should already have demonstrated competence in the performance of their work and established their position within their own communities. Every effort should then be made to attract them to study through Unisa - while continuing their work. In this way they could put into practice the knowledge they were gaining. Dr Adler (1984, p.11) believes that this "potential elite can be helped to emerge from the lower socio-economic strata....and become active in the historical process of developing the country".

3.1 Supporting Networks

3.1.1 Study Centres

In order to make use of our University to build an educational system into the community, we need supporting networks within these communities. Let us now consider one mechanism that could be implemented to promote leadership - decentralisation from the main campus of our university through the establishment of **study centres** in these communities. Live tutors can be used, not as teachers or lecturers in the traditional sense, but as people who could provide some kind of support for these students. The function of such tutors, according to Greyling, (1986, p. 35), will be limited to leading discussion groups, helping students to solve problems, to elucidate on certain aspects of the course and to tutor to small groups".

In this way, Perraton (1974) believes, they would provide some kind of artificial network, through which information and help might be channelled. The intention would be to gradually replace the tutors, provided by the university, by the existing network in which people are living. As Perraton (1974, p. 58) pointed out the idea of building an educational system into the community like this is obviously attractive". This is especially so where "the system is designed to help change society and not merely to support it" (Perraton, 1974, p. 58). This is consistent with the earlier discussion on "Bridging the Social Gap".

By establishing Unisa study centres in these communities and making use of Unisa students as tutors, our university can play a significant part in improving the general quality of life and level of services in developing areas. These tutors will play a key role in becoming the "bridge" for others - in improving the chances of success of those who come from their own background of disadvantage. The underlying assumption is that those who have the least background of formal education stand most in need of this type of personal help and encouragement. I am well aware that to provide such contact is organisationally complicated and costly, and that a lot of work has to be done if study centres are to become part of Unisa's system of delivery in making education more accessible.

3.1.2 Computer-Based Instruction and Training

Our universities are caught up in the conflict between social demand for education, on the one hand, and the costs of higher education, on the other hand. Van As (1983) refers to a speech by the Principal where he predicted that the next decades will see technological advances which will enable the DTU's to develop the full potential of their systems. One of these advances is the use of the computer with Computer Based Training or Instruction. Due to the rapid rate of social and technological change, and the need to uplift the skills level of a vast majority of the population, there has been a great shift towards using computers as a tool to enhance learning and teaching. Bates (1984) suggests that the move to distance education and independent learning will accelerate through computer conferencing, cable television and videocassettes, computer based instructional systems (CBI) and interactive videodiscs. New technologies offer an alternative model to the large centralised specialist system, because they are easy to access and easy to use. Computer-Based Education is rapidly gaining momentum, having proved to be cost effective and of a high quality in achieving various educational and training objectives.

Let us focus briefly on the use of Computer-Based Instruction/Interactive Video-disc systems as an instructional medium to be implemented at the study centres mentioned earlier. Well-known characteristics of CBI are - individualisation of instruction, creation of an interactive learning environment, immediate feedback and flexible time scheduling. Vermeulen & Oberholster (1985, p.4) propose that CBI can assist students in:

* Bridging the large school/university gap;

* The provision of remedial instruction to counteract the poor background knowledge of students;

* The provision of compensatory instruction to counteract the cognitive deficiencies of students.

With the integration of Interactive Video-disc systems with CBI, it will be possbile to combine the full spectrum of learning stimuli such as texts, audio-visual presentation, video, narration, animation, simulation, stills and computer graphics. There is tremendous potential for the CBI/IVD as a teaching aid in university level courses, for example, in

Physics and Mathematics. The CBI/IVD system will speed up the learning process by the use of interactive practice between the student and the computer with immediate corrective feedback facility.

Small groups of students at the study centres would be supervised by a tutor who would assume personal responsibility for the students. CBI/IVD would be used as a support system to teaching by conventional modes. For many students coming from disadvantaged environments this programme would represent their first contact with computer technology. It could help significantly in catering for the heterogeneous needs of the students in a personalized way.

4. Conclusion

I do believe that Distance Education can contribute to a closer relationship between higher education and the community - it can open the road for those, who for some reason, have not had the same opportunities as others. This does not, however, have to be at the price of excellence. It is not a question of lowering the standards, but rather of adapting our educational system to cater for the heterogeneous needs of its clientele - in the face of the changing social and political circumstances in our country as a whole. In conclusion, I should like to quote Rosenman (1982):

> Although it is an oversimplification to say, "If you are not part of the solution, you are part of the problem," the fact remains that colleges have not been the historical allies of those who live outside the dominant socio-economic system. Higher education is viewed by some as a way out of poverty, but that route has been walked by relatively few, one at a time, and it requires individuals to move away from their own communitites, leaving their

families and neighbours behind. (p.79)

Through partnerships such as those discussed here today, our University has the opportunity to play a significant part in community development. We have the potential to benefit large groups of people and advance social, political and economic justice in our society - to build a solid foundation of infrastructure on which development can rest.

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ADMISSION, REGISTRATION AND EXAMINATION PROCEDURES IN RESPECT OF POSTGRADUATE DEGREES AND DIPLOMAS

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The Department of Postgraduate Student Affairs is responsible for the administration of the Honours, BEd, Master's and Doctor's degrees as well as the BD degree, the Diploma in Translation and the majority of the diplomas in education offered by the University. In 1986 there were 12 071 students registered for the degrees and the diplomas for which the Department is responsible.

Since the University of South Africa is not a residential university, it relies heavily on, inter alia, information brochures and the calendar in communicating with students and prospective students. The Department of Postgraduate Student Affairs is responsible for the yearly revision of Parts 4, 8 and 9 of the Calendar and the preparation of 56 postgraduate information brochures.

With regard to the honours degrees, the BEd degree, the BD degree, the Diploma in Translation and diplomas in education, a computerised administrative system is used, especially for registrations, the supplying of tutorial matter, admission to the examinations and examination results. During the last couple of years this system has been refined to the advantage of both the student and the University. It has enabled the University to finalise a student's registration with the minimum of delay. Student information can also be retrieved without using a student's file. This saves time and enables the University to render a better service to its students.

Admission to these degrees and diplomas is not automatic, but must be approved, inter alia, by the Head of the relevant Department, except in the case of the diplomas in education where students must comply with the requirements as laid down by the Committee of Heads of Education. Each individual application must thus be checked in order to ensure that the admission requirements are met.

Admission to Honours degrees is considered by the Head of the relevant Department on the ground of the applicant's academic record. Initially each application was submitted to the Head of the Department individually. As a result of the exceptional growth in student numbers (during the period 1976 to 1986 the number of postgraduate students rose from 5 500 to over 12 000) this procedure became impractical and very time consuming. The larger departments particularly found it increasingly difficult to deal with the applications quickly. The result was that some of the students made a late start with their studies and failed to make the desired progress.

The various faculties, and even departments within the same faculty, did not apply the same criteria in considering applications. As a result in 1982 Senate approved parameters and guidelines for the various faculties, in accordance with which the administration was given greater power to administer honours applications. This appreciably expedited the finalising of students' registrations.

Despite the approved admission procedure, differences regarding admission still exist between the faculties and departments within faculties. A number of departments still consider each application individually.

As far as re-registrations for honours and BEd degrees are concerned different requirements are set by the various faculties. Only one faculty has Senate approved requirements in this regard and it is hoped that in future a more uniform system will be agreed upon. Such a uniform system would, to the advantage of the students, expedite the registration procedure.

As a rule students who enrol for the Diploma in Translation, an Honours or a BEd degree are not provided with regular lecture notes. They are guided in their reading and given lists of subjects, with the main points indicated, on which assignments must be worked out and submitted for comment. Brief lectures may, however, be provided on special subjects.

Previously the study material for honours students was despatched by the various academic departments after they had been informed that the students' registrations had been accepted. However, this is now done by the Department of Despatch which has greatly improved the service. Students are thus provided with tutorial matter as soon as their registrations are accepted.

The postgraduate examinations are now arranged by the Examination Section of the Department of Undergraduate Student Affairs for labour and cost saving reasons. This function was previously performed by the Department of Postgraduate Student Affairs.

The admission procedure for master's and doctor's degrees differs from that of the degrees and diplomas previously mentioned. A distinction is made between admission and registration. Before a student's registration can be accepted the Head of the Department must first decide whether the student's academic record is acceptable for admission and thereafter an agreement must be reached between the student and the department regarding the title or topic of his projected dissertation or thesis and/or examination topics. When the department recommends the title or topic for approval, a supervisor or promoter must be appointed. These particulars must be submitted to the Faculty Executive of the relevant faculty for a recommendation before a student's registration can be accepted.

An application by a foreign student for admission to the studies for a master's or a doctor's degree normally takes several months before it can be finalised. The main reason for this is that Senate has set certain requirements with which a student must comply before his application can be considered. Such a student must, inter alia, give full reasons why he cannot pursue his studies at a university in his own country, give an undertaking to come to Pretoria for an oral examination if required to do so and submit a statement from his previous university that they would be prepared to admit him to the studies for the degree concerned if he should apply for admission at that university. If the student's previous qualifications were not obtained at a recognised university, the Department of Postgraduate Student Affairs has to write to two recognised universities in the country concerned regarding the acceptability of his qualifications.

Each individual application thus takes a considerable time. The same applies to re-registration where a maximum period of study has been laid down and close attention is paid to the student's progress. The University continually endeavours to speed up the registration process. In order that the academic year may be lengthened, first registrations for master's and doctor's degrees which comprise only a dissertation or a thesis are accepted as from 1st July for the following academic year. Provision has also been made for a spring graduation ceremony for students who cannot submit their dissertations or theses in time for the April/May graduation ceremony, but who are able to submit it before 15th June for examination.

The examination of dissertations and theses is also a lengthy process, especially since external examiners are appointed in all cases. The Department of Postgraduate Student Affairs is responsible for all the arrangements in this regard. Once a student has informed the University that he intends submitting his dissertation or thesis for examination, the student's file is sent to the Head of the Department for the appointment of a panel of examiners. After the panel of examiners has been approved by the Faculty Executive or, in the case of a doctor's degree, by the Chairman of Senate, a letter is written to the external examiner enquiring whether he would be prepared to accept the nomination. When a student submits his dissertation or thesis it can then be sent to the examiners without delay.

After all the examiners' reports have been received and the result has been approved by the Faculty Executive and the Chairman of Senate, the candidate is notified of the result. A provisional statement that he has completed the degree concerned, is sent to him at the same time.

All approved titles and supervisors of dissertations, panels of examiners and results are submitted to the Boards of the Faculties for noting.

In the case of doctor's degrees these particulars are first submitted to the Boards of the Faculties for a recommendation and thereafter to the Executive Committee of Senate, unless the particulars were approved by the Chairman of Senate beforehand, in which case it is submitted for noting. The Department of Postgraduate Student Affairs is responsible for the inclusion of these particulars on the agendas of meetings of the Boards of Faculties.

As far as registrations for master's and doctor's degrees are concerned the computerised administrative system is being used to an increasing extent. Further developments in this regard are envisaged.

The Department is also responsible for the allocation of all University administered bursaries. The criterion for the award of bursaries is academic achievement in the preceding year. Bursaries are awarded by means of computerised merit lists or on the grounds of the recommendations of the heads of the relevant academic departments. Final approval, however, rests with the Research and Bursary Committee.

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THE UNISA DEPARTMENT OF PRODUCTION — A FUNCTIONAL LINK IN THE DIDACTIC TRIANGLE

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The Production Department plays a vital role in the didactic triangle which, at the tertiary level, is composed of lecturer, student and tutorial matter. It is instrumental in the interaction between lecturer — the source of information — and student — the recipient.

It is a fundamental scientific fact that all communication has to take place by means of a medium, be it sound, radio, television, writing, printed work or whatever. Its professional effectiveness is determined by the degree to which the parties concerned are able to use and interpret these media.

To use a medium effectively, the user must be familiar with all its advantages and disadvantages.

At Unisa the main communication medium is the written, or printed, word.

Study guides and tutorial letters establish didactic contact between lecturer and student despite their spatiotemporal separation.

Although this method appears to allow linear one-way communication only, there are various built-in means of obtaining feedback, such as assignments and personal contact by means of telephone enquiries and discussion groups.

Here Production plays an important role since it is responsible for the typographical presentation of the message conveyed to the student by the lecturer; this message has to be presented in such a way that optimal effectiveness is ensured to bridge any communication gap which may result from the lack of personal contact between the two parties.

In addition, a "house style" is created, so that the student may experience a feeling of continuity between the great variety of disciplines. Typographical layout thus helps to establish a link between the various subjects and courses.

The integration of, for instance, drawings, diagrams and schemes with the printed text makes it easier for the recipient (the student) to understand concepts.

In distance education, as practised by Unisa, communication relies primarily on reading matter and, where the individuality of students is concerned, choice, scope and presentation of tutorial matter are of fundamental importance.

Since the written (or printed) word is the primary means of tuition at Unisa, it plays a much greater role here than at any residential university or tertiary educational institution. In other words, since most of our learning derives from the written rather than from the spoken word, Unisa is unique in that it makes greater use of this basic teaching method than conventional universities.

We shall now examine a few of the advantages and disadvantages of communication through printed media.

Spatially, the printed word can condense large volumes of information in a compact form; yet the student can have access to it virtually anywhere.

Where time is concerned, individual students can arrange their studies to suit theirown organisational programme. In this regard the medium does have one disadvantage, however, in that tutorial matter may sometimes not be available at the right time owing to organisational problems at Unisa.

Other important advantages of the printed word are that students can study at their own pace, that it is permanent (one can refer to it over and over again) and that it can be personalised — the individual can underline certain sections, add notes and so forth.

Mass production is another advantage of printed work, since it can be reproduced very effectively. It is relatively inexpensive, provided that the number of copies printed is sufficiently great. However, cost-effectiveness depends on the criterion used: measured by the total number of students, it is a very inexpensive medium; measured by the number of successful students, on the other hand, it is very expensive.

Some of the disadvantages of this type of medium are that it is very difficult to make changes to a text after a certain stage in the printing process. Reading skill determines the decoding rate, and as the average person is an ineffective reader, information is generally decoded very slowly. In addition, the discretion of each individual student determines how effectively he or she can distinguish between information of greater or lesser importance.

Since all communication between lecturers and students has to bridge a spatiotemporal gap, the destination is usually unknown to both parties. Hence the use of this medium may cause students to become isolated. Naturally, feedback is slower and clumsier than through direct contact.

Since the activities of the Production Department can be depicted more vividly by a visual medium than by discussing them for half an hour or more, we cordially invite you to join us in viewing a video recording of the production process.

A word of apology to our honoured visitors from overseas: because the primary object of the video recording is to serve as an information and training programme for Unisa staff, both official languages — English and Afrikaans — are used in the commentary. However, the visual images are so clear that I am sure you will be able to follow the relatively short sections with Afrikaans commentary — you may even find them interesting. By way of introduction to the programme I should like to provide the following information:

Unisa has the largest in-plant printing works in Southern Africa and, according to unofficial sources, the second-largest in the world. The Department of Production is one of the four service departments of this university; it has a staff of 138, consisting of administrative personnel as well as highly qualified technicians and artisans. The other service departments are Scheduling, Despatch and the Editorial Department. The latter has a staff of 42 editors and translators, as well as a large panel of freelance translators and editors.

In 1986 Unisa printed a total of 322 million pages, comprising 794 500 study guides, 4 686 000 tutorial letters and 8 583 000 documents of a more general nature. To achieve this, our 14 printing machines worked more than 22 000 man-hours and used 570 tons of paper.

Thank you for your patience. I trust that you will enjoy the video programme. If any of you would like to visit the Production Department, please contact me or any of the organisers in this regard.

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UNISA'S SCHEDULING SECTION

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The distance tuition offered by Unisa is given mainly by means of study guides and tutorial letters. This tutorial matter is produced by the University's own printing works.

Unisa lecturers have to fulfil not only their primary duty - that of teaching; they also have to enter territory which is probably foreign to them: the business of publishing. As creative writers, they will now have to deal with editors and translators; with setters, proofreaders, typographers, printers, binders - and deadlines.

Fortunately lecturers do not have to face this unfamiliar world on their own. Probably the first people who will assist them in this new situation will be members of the Scheduling Section with whom they will work in close collaboration from the moment - or even before - they begin compiling their manuscripts, until the finished product is delivered to the Despatch Department. Manuscripts have to meet certain requirements; in the subsequent stages of production certain procedures have to be followed and lecturers must be familiar with these. Moreover, they should know the route their manuscripts will be following through the production process. In this respect the services of the Scheduling Section will prove to be particularly useful. This Section liaises between the three service departments (Editorial, Production and Despatch) on the one hand and academic staff on the other. Our common purpose is to see that students who register at Unisa receive their tutorial matter at once. To ensure this there has to be continual co-operation between academic, professional, administrative and technical departments.

Scheduling

Basically, scheduling means ensuring that "specific items" reach a "given destination" at a "given time", and that both the supplier of such items and management will at all times be kept up to date with the progress of such items through the production process as well as with the overall picture. In Unisa's case the "specific items" consist of tutorial and other printed matter; the "given destination" is the Scheduling Section (to which all items are submitted) and the various operational points in the service departments; the "given time" is, firstly, the scheduled submission date, secondly, the time when an item is expected at a particular operational point and, finally, the date when it will be needed by students and others.

The Scheduling Committee

A Scheduling Committee was instituted in 1975, at which time the Principal outlined its proposed functions in the following way: "In view of its size, it has become imperative that Unisa, like any business concern, should be run according to business principles. We must ensure that the tutorial matter submitted by lecturers will reach students as expeditiously as possible, and in the most attractive form possible. The Committee must see to it that the various departments concerned co-operate, and must identify and eliminate bottlenecks and problem areas. The functioning of the Committee does not imply interference in the autonomy of teaching departments but should rather be seen as a concerted attempt at securing their co-operation."

The Scheduling Section

The responsibility of realising the Committee's aims was entrusted to the Scheduling Section and we shall now estimate to what extent the Section is serving its purpose.

The Scheduling Section is a specialised, technical and administrative unit functioning at managerial level within the Unisa framework, its cardinal aim being that students receive their tutorial matter on time. To this end it has to ensure that the activities involved in the creation of tutorial matter are synchronised and that there are no hitches or delays in their execution.

Functions and duties

This paper does not cover all aspects and activities of the Scheduling Section. The emphasis is on study guides and everything pertaining to them. This is, firstly, because study guides are the principal teaching medium at Unisa and, secondly, because the preparation, production and distribution of study guides constitute the greatest proportion of the activities of the Scheduling Section and the service departments.

There are at present almost 3 000 different Unisa study guides in circulation. The normal currency of study guides is three years, so that every year some 1 000 study guides are either thoroughly revised, rewritten in toto, or reprinted.

The submission schedule

The record or "inventory" of Unisa study guides is the submission schedule. This set of documents - one for each academic department - contains the particulars of every study guide published by Unisa: the course code, study guide number, currency, name of compiler, language, submission date and other administrative information.

Every year in May the Scheduling Section supplies heads of academic departments with a partially completed new submission schedule. Heads of departments insert the missing information - that is, particulars of study guides whose currency will expire the next year and which will therefore have to be either rewritten, revised or reprinted. The most important piece of information on this schedule is the submission date: the date by which a lecturer has to send his (new or revised) manuscript to the Scheduling Section.

The submission period covers ten months (from August to June). In compiling the submission schedules, heads of academic departments are requested to spread submission dates evenly over the whole ten-month period so as to obviate bottlenecks in May and June.

Submission schedules also enable the Editorial and Production Departments to realistically budget for materials, plan the utilisation of their services and anticipate problem areas in good time.

The Scheduling Section checks and, where necessary, alters or corrects new submission schedules in consultation with heads of departments. The schedules are then submitted to the Scheduling Committee, chaired by the Registrar of Academic and Student Affairs, for approval.

Once approved, copies of the submission schedules, signed by the Vice Principal (Tuition), are sent to the heads of the departments concerned. The most important points arising from the approved submission schedules are:

(a) Submission dates for manuscripts of study guides are binding and may be deferred only with the written permission of the Vice Principal (Tuition).

(b) Study guides not included in the schedule may be tendered for inclusion only in exceptional cases and with the approval of the Vice Principal (Tuition).

(c) Study guides may be cancelled only with the permission of the Vice Principal (Tuition).

(d) The currency of a study guide is fixed for a certain period and may be altered only with the permission of the Vice Principal (Tuition).

Submission dates are the last day of each month from August to June. Each month the Scheduling Section sends two reminders to all heads of departments who have to submit study guides at the end of that month. If a study guide is not received by due date, the Scheduling Section sends a final reminder and, if necessary, takes further steps to procure the outstanding manuscript.

Receipt and registration of tutorial and other printed matter

All printed matter handled by Unisa is routed through the Scheduling Section. Every year the University produces approximately 1 000 different study guides, 10 000 tutorial letters and 2 000 miscellaneous printed items (letterheads, administrative forms, jobbing, etc.).

The Scheduling Section allocates a job number to each item, registers it -- for its own records as well as for computer and costing purposes -- and issues a receipt. All items are thoroughly checked before being sent to the Production or Editorial Department.

Checking of manuscripts

It is the Scheduling Section's responsibility to check all manuscripts submitted, in particular the study guides, special attention being given to:

(a) Completeness. Each manuscript must be complete with illustrations, graphs and any other supplementary material that goes with it.

(b) Quality. Manuscripts must comply with certain minimum requirements as specified in the Unisa brochure, Tutorial and other printed matter (TPM). Manuscripts not meeting these requirements (e.g. if there are pages missing, infringements of copyright, if the handwriting is illegible or the photocopies lacking in clarity) are returned to the compiler for rectification.

(c) Copyright. Compilers often incorporate material from other publications into their manuscripts. The Scheduling Section checks whether the source of such borrowed material is fully acknowledged and, if the copyright holder's permission is required to reproduce material, it makes sure that such permission has been obtained and accompanies the manuscript.

The Scheduling Section therefore acts as a filter, intercepting irregularities in the work submitted before such irregularities or infringements cause problems elsewhere or disrupt and delay the production process.

Tutorial letters

The Scheduling Section has another important function, that is to check tutorial letters. The Section must make sure, for example, that -

(a) tutorial letters are correctly categorised and coded;

(b) the length does not exceed the maximum of 72 pages;

(c) the requirements of the Production and the Editorial Departments are met;

(d) students are not given outdated or incorrect information;

(e) certain compulsory information (stipulated by regulation) is supplied.

Because of the urgency of tutorial letters, every effort is made to ensure that they are processed on the day they are submitted.

Tutorial letters are valid for one year only. This means that they have to be resubmitted every year, even if their content remains unchanged.

General printed matter

Unisa prints various general items such as information brochures for students, departmental journals and other publications, invitations to official functions, degree certificates, as well as the stationery required for management such as letterheads, envelopes, order forms, and a host of other items. These items are also routed through the Scheduling Section where they are checked to ensure that there is compliance with the University's requirements.

Priorities

One of the Scheduling Section's most important functions is to assign a priority to each task submitted. Such priority determines the urgency with which the task will be executed. Priorities are assigned according to certain standard criteria and depend on the nature of the task, ranging from 1 for tasks to be processed immediately, to 7 for tasks which are not of particular urgency and for which there is a flexible time limit. Tutorial matter is given higher priority than non-tutorial matter (general printing), and ordinary administrative items never take priority over tutorial or study-related material.

Follow-up work

The Scheduling Section must ensure that tasks carrying deadlines (mainly tutorial matter) are submitted punctually. It constantly monitors the progress of work in process and, in conjunction with the service department concerned, takes remedial steps when hitches or bottlenecks occur at any operational point, or if an item fails to progress satisfactorily through the production process.

The Section also ensures that proofs sent to lecturers by the Editorial and Production Departments for proofreading and approval are returned to the department concerned before or on the due date (usually within ten working-days).

Liaison

The Scheduling Section keeps, as it were, "its finger on the pulse" of the entire production process of tutorial matter and everything directly or indirectly related to it, and is therefore ideally placed to liaise between management, lecturers and other clients, and the service departments.

Inquiries and information

Inquiries about any matters dealt with by this Section are answered either by the Scheduling staff or referred to the appropriate individual or department.

Technical and legal advice

This Section has on its staff two members with legal training who are in a position to advise lecturers on copyright or related matters. One staff member is a qualified printer/typographer able to supply information and advice on the practical and technical aspects of printing.

Compilation and distribution of information brochures

To provide assistance to lecturers and others and acquaint them with the procedures, requirements, possibilities and limitations associated with the production of tutorial and other print material and matters such as the submission schedule, tutorial letters, and so on, the Scheduling Section regularly compiles brochures and other information pamphlets. These are available on request and are automatically issued to new staff members. The following are examples of such information brochures:

Tutorial and other printed matter (TPM);

Guidelines for the compilation of study guides;

Tutorial letters: Guidelines for departmental secretaries and typists.

An appraisal of the Scheduling Section's performance would indicate how effective a service Unisa is providing to its students. Considering the vast volume of work and the amount of checking involved, one must conclude that the Scheduling Section -- with only five staff members -- manages very well to do its share in ensuring that tutorial matter reaches students on time.

Because the production of a study guide is a protracted and complicated process it is necessarily attended by numerous problems.

Common problems

(a) Uneven distribution of due dates on the submission schedule, an excessively large number of study guides being due in May and June.

(b) Slightly amended or short study guides requiring relatively little time and labour are submitted early in the year when the Production and Editorial Departments are less occupied or even have waiting-time on their hands. In contradistinction, extensively revised or newly compiled - often lengthy - manuscripts requiring a great deal of work, are submitted mainly in May and June. Such manuscripts reach the Production and Editorial Departments at a time when they are fully occupied and often overextended.

(c) **Postponement of submission dates.** Every year an average of 8 per cent of compilers are unable to meet the scheduled submission dates and apply for deferments.

(d) **Late submission.** Approximately 33 per cent of all scheduled study guides are submitted late each year. This situation not only creates problems for the Scheduling Section and the service departments; it is also detrimental to the students, some of whom receive their tutorial matter as much as four months after registration.

(e) **Academic problems.** Many of the problems mentioned above are attributable to conditions in teaching departments. Because the academic workload is heavy, many lecturers are unable to prepare their study guides during the months most suitable from a scheduling point of view (August to December). The best time for them is between January and June, but this creates problems for the service departments which are by then fully occupied or overextended.

In addition, if lecturers are unable to prepare their study guides in the short period between January and May (for first study guides) or January and June (for all other study guides) the submission dates have to be deferred. The result is that study guides probably will not be available in time.

The submission schedule is drawn up two years in advance (e.g. in 1987 for 1989 study guides). Many lecturers feel that information contained in study guides which are submitted early (i.e. August - December) may be outdated by the time they reach the students.

(f) **Unacceptable manuscripts.** About 20 percent of manuscripts submitted do not comply with the stipulated requirements and have to be returned to the compilers for rectification. It should be borne in mind that the Scheduling Section can detect only obvious and conspicuous errors in the checking stage (e.g. illegible handwriting; non-acknowledgement of sources of illustrations). A major problem, and one that comes to light only after the manuscript has reached the Editorial Department, is that the language may be of such poor quality that the study guide requires extensive rewriting.

Completion of a study guide will obviously be seriously delayed in such cases.

(g) **Copyright.** Most Unisa lecturers incorporate a substantial amount of material from other sources into their study guides. Obtaining a copyright licence is often a lengthy process which can delay the completion of a study guide. If a compiler neglects to apply for copyright concession in good time the delay can become critical.

(h) **Excessively long study guides.** The University stipulates that the total number of pages of all study guides for a given course should not exceed 400. However, many of the study guides submitted exceed this limit. Research has shown that a study guide should ideally comprise between 150 and 200 pages. This is a manageable number of pages enabling the service departments to have the study guide ready in time for students.

In view of these problems and the fact that a study guide which has to be edited and translated takes an average of 84 working-days to reach Production and a further 76 working-days to reach the Despatch Department, it should be obvious that it is not always possible to have all study guides available by the time students begin registering.

Measures taken by the Scheduling Section to contend with problems

The following measures are taken by the Scheduling Section to contend with the problems it encounters:

(a) A high priority (3) is assigned to all first study guides for first courses and papers for which more than one hundred students are registered.

(b) If a manuscript runs to an unusually large number of pages, the Scheduling Section will request the compiler to divide it into two separate study guides.

(c) If a study guide entered as "new or revised work" on the submission schedule is actually only slightly amended existing work, the Scheduling Section will approach the head of the department concerned and request that the guide be reprinted without amendment and that any changes which must be made be brought to students' attention by means of a tutorial letter. There are often sufficient stocks of such study guides so that it is unnecessary for Production to reprint them.

(d) Experience has shown that, although certain study guides are indicated as new or revised editions on the submission schedule, their contents remain practically unchanged year after year. In these cases the Scheduling Section arranges with the head of the department concerned to have the guides reprinted unamended.

(e) Regular discussions are held with departmental heads to try to achieve a more even distribution of submission dates. Judging by the submission schedules for 1988, considerable headway has been made. The percentage of study guides submitted before the end of 1986 (17%) is appreciably higher than that for 1985 (11%). The peak period has been advanced from May to April and fewer guides (161) will be submitted during this peak period than during the same period in 1985 (212).

This improvement has enabled the Editorial Department to start working on study guides during their slack period.

(f) A long-term policy (based on a three-year cycle) is being phased in so that one third of a department's study guides will be submitted each year. If this policy is successfully implemented the submission schedule will reflect some 950 study guides annually. If the present pattern of unamended reprints (averaging 25% of the total number) persists, approximately 711 new or revised study guides will have to be produced annually -- a manageable figure.

Conclusions

Earlier, the question was posed whether the Scheduling Section is attaining its goal of assisting with the provision of tutorial matter in time, and the answer is "Yes".

In fact, considering the enormous volume of work that has to be completed in a short period by so few people with limited equipment, and the problems constantly encountered, the results are very encouraging indeed. Every year there is a marked improvement. For example, when registration opened on 1 November 1986, 2 557 (88%) of the total number of Unisa study guides (2 908) were ready and available. Especially encouraging was the fact that of the most urgent study guides, that is first or only study guides for first courses, only twelve were not available on 1 November 1986 and these were ready within a matter of weeks.

FUTURE DEVELOPMENTS

In their constant striving for better, faster and more efficient service, the service departments are relying increasingly on technological aids. This trend is reinforced by the student explosion which makes it virtually impossible to "manually" deal with such numbers. Thus the Editorial Department makes use of word processors, Production of electronic typesetting methods and the operations in Despatch are almost totally computerised and automated.

Naturally the Scheduling Section has to adapt its work methods to the ever-changing operations of the service departments. At the same time this Section must investigate the possibilities offered to it by technological aids.

The nature of the Section's activities virtually restricts such possibilities to the following:

(a) Word processors or microcomputers, which would be very useful for --

  (i) the production of circular letters, reminders, demands and general correspondence which is often routine; and

  (ii) computerising submission schedules -- data stored over long periods can greatly expedite and facilitate the compilation of statistics and reports.

(b) VDU terminals linking the Scheduling Section directly to the service departments would be especially useful in providing instant feedback to users enquiring about the progress of their work.

THE ROLE OF THE FULL TIME EQUIVALENT STUDENT IN A DISTANCE TEACHING UNIVERSITY

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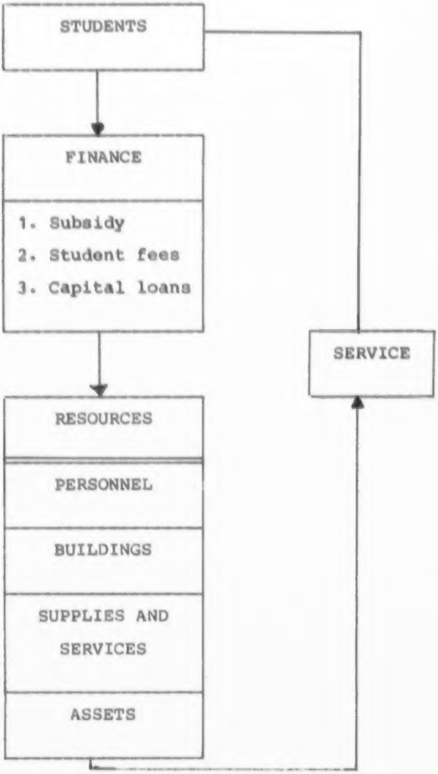
1. THE UNIVERSITY MODEL

A university can be seen as a model with various components and with very specific relationships between these components. The simplified University model is illustrated in Figure 1.

FIGURE 1

THE SIMPLIFIED UNIVERSITY MODEL


STUDENTS
FINANCE
1. Subsidy
2. Student fees
3. Capital loans
RESOURCES
PERSONNEL
BUILDINGS
SUPPLIES AND SERVICES
ASSETS
SERVICE

From the model it can be seen that a University basically consists of five components namely

1. Students

   Students form the very basis for the existence of a university. A student registers at a university in order to obtain a degree and therefore expects a service from the university.

   The primary service is an academic service which entails formal instruction or the imparting of knowledge. But there is also an important administrative service which ensures that the student is properly registered and obtains the facilities necessary for his studies.

2. Finance

   The service required by students have to be provided by certain resources and these resources have to be financed. The students, which form the basis of the university, is also the basic source of finance for the university. Very few students would be able to afford the full cost of modern university education. Students therefore carry about 22% of the cost while the state, as part of its responsibility to education in the country, carries the remaining 78% in the form of a state subsidy.

3. Personnel

   Service can only be provided by people. In order to provide the service to students a university needs personnel. These personnel can be divided into academic personnel to provide the academic service and administrative and supporting personnel to provide administrative and supporting services.

4. Buildings

   Personnel need offices to work in. There is also a need for classrooms, assembly halls, laboratories, libraries and other specialised physical facilities. These buildings have to be planned and erected and then maintained.

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5. Supplies and Services

Supplies and services form an essential element in the functioning of a university. Personnel must have paper, pens, transparencies for lectures etc. The university also needs services such as telephones, electricity, water etc.

6. Assets

A University must have equipment such as typewriters, computers, printing machines, vehicles, furniture, library books etc. These assets also need to be constantly replaced due to obsolescence.

2. STUDENT LOAD ON RESOURCES

The service required by students implies that students impose a load on university resources. The extent of this load is directly proporsional to the number of students. It would however be wrong to relate this load merely to a head count of student numbers. It is more correct to relate this load to the following:

1. Number of course enrollments

It is evident that a student taking five courses will place a greater load on university resources than a student taking only two courses

2. The level of courses

A student studying for a doctorate will require more expensive manpower e.g. a senior professor, than a first year student who can be instructed by a more junior lecturer.

3. The subject field of a course

Courses in medicine, science and engineering are generally more expensive because of the need for practical laboratory instruction and the need for technical equipment.

There is therefore a need for another form of student counting and this is done with the Full Time Equivalent student concept.

3. THE FULL TIME EQUIVALENT STUDENT (FTE)

In this system a student taking all the prescribed courses of a particular study year is counted as 1 full time student. A student taking less than the prescribed courses is counted in terms of a full time student, that is as a full time equivalent student, which will be a fraction of 1.

For example, a full time first year B.A.-student taking the prescribed 5 courses is counted as 1. Each course therefore has a credit of .2. A B.A.-student taking only 2 courses is counted as 2 X .2 = .4. Similarly a full time third year B.A. student taking the prescribed 2 final year courses is counted as 1. A third year B.A. student taking only 1 third year course is counted as 1 X .5 = .5. The FTE concept is further illustrated in Table 1.

The total number of FTE students in a particular course are therefore merely the total number of enrolments in that course multiplied by the credit of that course. The total number of FTE students in the univerity is the sum total of FTE's in all courses.

There are three kinds of FTE students namely

1. FTE - enrolled students

   These are the number of full time equivalent students enrolled at a certain census date, which in South Africa is the first Tuesday in June.

2. FTE - degree credit students

   These are the number of full time equivalent students who have passed examinations, i.e. who have received a credit towards a degree.

3. Subsidy students

   Subsidy students are used in the subsidy formula. Both FTE enrolled students and FTE degree credit students are taken into account. Subsidy students are also grouped into two

TABLE 1

CALCULATION OF FTE VALUES

LEVEL	MINIMUM NUMBER OF YEARS	PRESCRIBED NUMBER OF COURSES	CREDIT PER COURSE	FTE VALUE PER NUMBER OF COURSES					LEVEL WEIGHT
				1	2	3	4	5	
FIRST YEAR	1	5	0.2	0.2	0.4	0.6	0.8	1.0	X1
SECOND YEAR	1	3	0.333	0.333	0.666	1.0	-	-	X1
THIRD YEAR	1	2	0.5	0.5	1.0	-	-	-	X1
HONOURS	1	5	0.2	0.2	0.4	0.6	0.8	1.0	X2
MASTERS	1	-	1/x	-	-	-	-	-	X3
DOCTOR	2	-	2/x	-	-	-	-	-	X4

Where x = average number of years of students to obtain the degree broad categories namely the Human Sciences and the Natural Sciences.

3.1 Effective subsidy students

The Effective subsidy students in the Human Sciences are equal to

$$600 + 1/3\ EH + 1/3\ PH$$

The Effective subsidy students in the Natural Sciences are equal to

$$400 + 1/3\ EN + 1/3\ PN$$

Where EH, PH, EN and PN denote FTE enrolments and passed degree credits in the Human Sciences and Natural Sciences respectively.

These FTE enrolments and passed degree credits are weighted according to level as follows:

X1	All undergraduate diplomas, degrees and post-graduate diplomas.
X2	The fourth level of four year degrees as well as Honnours degrees
X3	Masters degrees
X4	Doctors degrees

Subsidy students are also increased with a set up component to cater for setting up new departments or new courses. The set up component is as follos:

Human Sciences:	600
Natural Sciences:	400

3.2 Projected effective subsidy students

Effective subsidy students are further projected two years in advance with the following formula:

$$f_i = f_{i-2} + (f_{i-2} - f_{i-3})$$

Where f_i = projected effective subsidy students for year i

f_{i-2} = actual effective subsidy students for year i-2

f_{i-3} = actual affective subsidy students for year i-3

4. THE IMPORTANCE OF THE FTE CONCEPT

The FTE concept is particularly important in the case of a distance teaching university. The reason is that students in a distance theaching university generally enrol for far less courses than at a residential university.

The ratio of FTE's to head count at Unisa is 0,51 whereas at a typical residential university it is 0,83.[4]

The use of FTE's to calculate the load on resources is therefore even more important at a distance teaching university than at a residential university.

The FTE students are used in the Subsidy Frmula of the state and internally in Unisa in the Academic Staff Formula, the Financial Model and in Long Term Physical Planning.

5. THE FTE IN THE SUBSIDY FORMULA

The Department of National Education decided to use the projected effective subsidy students as a basis for calculating the subsidy of universities. This provides a common basis and makes comparisons between universities more realistic.

The subsidy formula is a comprehensive formula and can not be discussed in detail in this paper.

It has the following basic format:

Financial provision = a number of cost units X C
Where
The number of cost units = a fixed ratio X projected effective subsidy students.
C = The Rand value of a cost unit which can be adjusted annually to cater for inflation.

The subsidy formula provides for a subsidy in the following categories:

1. Salaries of instruction/research personnel
2. Salaries of other personnel
3. Expenses for supplies, services etc.
4. Renewal of buildings and land imporvements
5. Replacement of Equipment
6. Renewal of book and periodical volumes
7. The aquisition of new equipment
8. The aquisition of new books and periodical volumes

The formula for the provision for salaries of instruction/research personnel for example is as follows:

for Human Sciences: 0.056 X SH X C1
for Natural Sciences: 0.069 X SN X C1

C1, the Rand value of a cost unit is determined by defining a 'typical university instruction/research professional'.

The salary, service bonus, employers' contribution to pension funds, housing subsidies and employers' contributions to medical aid schemes are all taken into account to determine the rand value of C.

The basic features of the subsidy formula are:

1. The subsidy formula is based on empirical studies of student/staff ratios.

2. It has only two variables, namely subsidy students and the Rand value of C.

3. It creates a number of cost units which are independent of the Rand Value. This makes it possible to budget in real terms in cost units.

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6. THE FTE IN THE ACADEMIC STAFF FORMULA

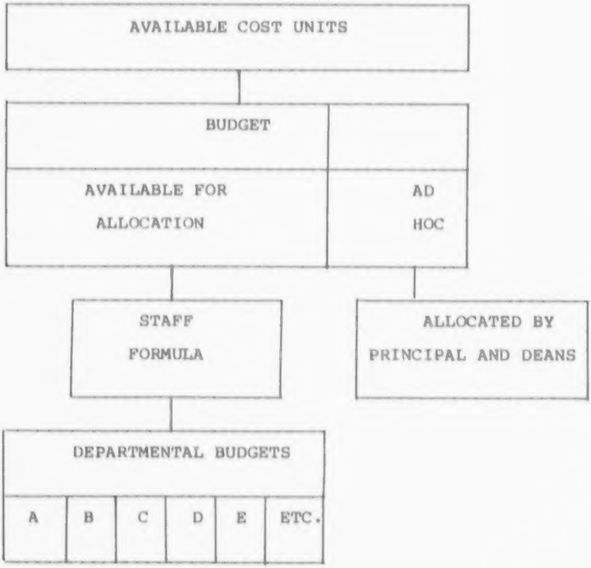
The University receives an amount for salaries of instruction/research personnel and this must be distributed amongst departments in a fair manner.

The underlying principle in the Academic Staff Formula is that each department has contributed to the subsidy income in relation to their number of subsidy students. This same relation is then used in the allocation of cost units to departments. Subsidy students therefore form the basis of the Academic Staff Formula.

The staff formula however takes into account the economies of scale inherent in a large distance teaching university. This means that if 100 students require X cost units the next 100 students will not require 2X cost units but 2yx where 0 y 1. The saving thus obtained is used to help the very small departments and to finance ad hoc requirements.

The staff formula is graphically illustrated in figure 2.

FIGURE 2


AVAILABLE COST UNITS
BUDGET
AVAILABLE FOR ALLOCATION
AD HOC
STAFF FORMULA
ALLOCATED BY PRINCIPAL AND DEANS
DEPARTMENTAL BUDGETS
A
B
C
D
E
ETC.

The total number of cost units available for allocation is determined by the subsidy formula. Management then decides on a certain number of cost units which are used for ad hoc requirements such as departments doing their own translation of study guides and for temporary posts. The rest of the available cost units are then allocated to departments by means of the following mathematical formula

$$FK = {}^{a}\, S_{k}^{\;0.6781}$$

Where FK = Number of cost units in cost centre/subdepartment K

SK = Number of subsidy students in cost centre/-subdepartment K

The effect of economies of scale of this formula is illustrated in figure 3.

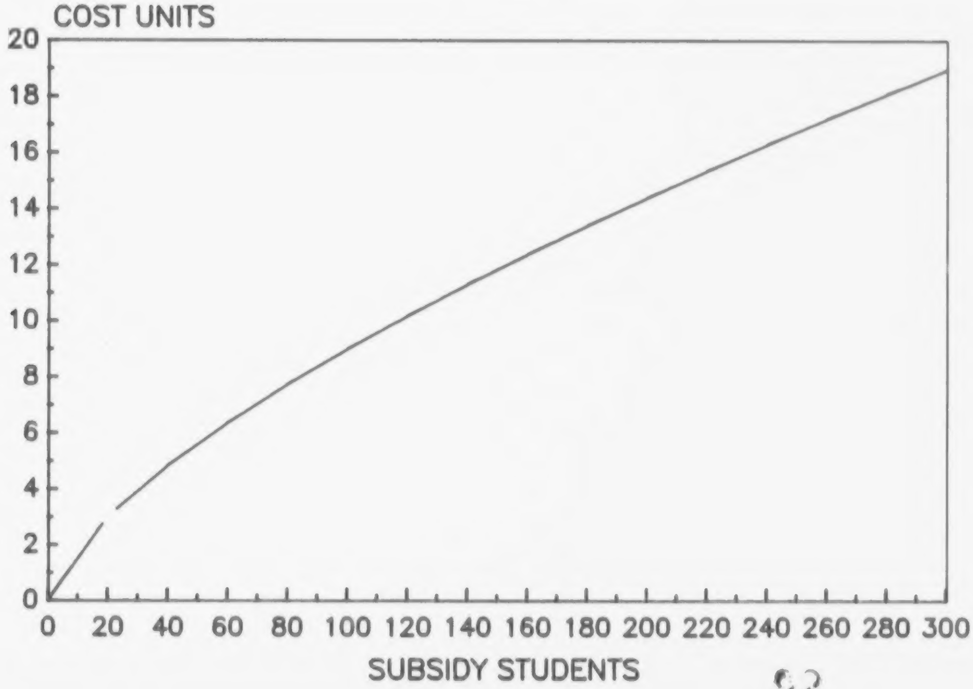
Every department thus receives a "budget" of cost units. The department can then apply for new posts and upgrade existing posts as long as the total cost units of all the posts in the department do not exceed this budget.

A Senior Lecturer is taken as 1 cost unit and all other posts are measured in terms of a senior lecturer as follows:

POST	COST UNITS
Professor	1.35
Associate Professor	1.15
Senior Lecturer	1.00
Lecturer	0.90
Junior Lecturer	0.65
Temporary full time Junior Lecturer	0.45

FIGURE 3

THE EFFECT OF ECONOMY OF SCALE IN THE ACADEMIC PERSONNEL FORMULA



7. THE FTE IN THE FINANCIAL MODEL

7.1 Principles

The Financial Model provides for the allocation of funds to departments for supplies, services and rental of equipment. This fund include expenses for current expenses for laboratories, attendance of conferences, travel and accommodation and rental of equipment.

A financial model for the allocation of these funds to departments has been in operation in Unisa since 1980. Budgeting is done in real terms i.e. in cost units which are independent of inflation. Adjustments for inflation are made annualy and this ensures far better financial control.

7.1 Functioning

A norm of cost units per subsidy student is established for every department. These norms are based on the actual expenses of each department and the total number of subsidy students in a certain base year.

The financial provision in cost units for any subsequent year is then obtained by merely multiplying the norm with the new total subsidy students for that year. The Rand figure is obtained by multiplying the total cost units with the Rand value of a cost unit.

The above is calculated with the following two formulas:

1. Calculation of norm

$$N = \frac{B}{VXS/1000}$$

Where N = Norm (provision per subsidy student)
B = Departmental budget in base year
V = Value of the cost unit in base year
S = Subsidy students

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2. Calculation of Financial Provision

F = N X S/1000 X VB

Where F = Financial provision in Rand for budget year.
N = Norm
S = Subsidy students in budget year
VB = Value of a cost unit in budget year

Dividing the number of subsidy students by 1000 is merely to make the norm more convenient. It would otherwise be too small a fraction.

The financial model has the following advantages

1. The norm is a measurement whereby the financial inputs of departments can be evaluated.
2. The use of real term budgeting in cost units with adjustments for inflation have ensured more efficient allocation of funds and better financial control.
3. Within the "budget" allocated a department has greater freedom to plan and control its expenses.

8. THE FTE IN LONG TERM PHYSICAL PLANNING

A very important function in any University is the long term planning for the erection of new buildings to cater for growth in FTE student numbers. These buildings must be ready and available to house personnel and other facilities needed to serve these students.

There are three basic elements in long term physical planning, namely

(1) FTE student numbers
(2) Area of space
(3) Cost of space

There are two basic ratios involved namely

(1) Ratios between student numbers and area of space needed
(2) Ratios between area of space and cost of space

Both these ratios depend on two secondary factors namely

(1) Type of space, e.g. laboratories, classrooms, offices etc.

(2) Function of space i.e. whether it is used for instruction, or for example financial administration.

The Department of National Education has established a set of ratios or norms with which the area of building space needed and the cost of that building space can be determined.
There are two basic norms namely

1. Space norms

   The norms are expressed as square meters per FTE student. The area needed is therefore calculated with the following formula:

   Area in square meters = FTE students X space norm.

2. Cost norms

   The calculation of cost of space is influenced by the inflation factor. In order to eliminate this factor the cost of a building is expressed in cost units. In this system 1 square meter of office space is taken as costing 1 cost unit. All other space cost either more or less than 1 cost unit depending on the type of space and function of space.
   The Rand value of a building can then easily be determined by assigning a Rand value to a cost unit and adjusting it annually per inflation.
   The cost units of a building is calculated with the following formula:

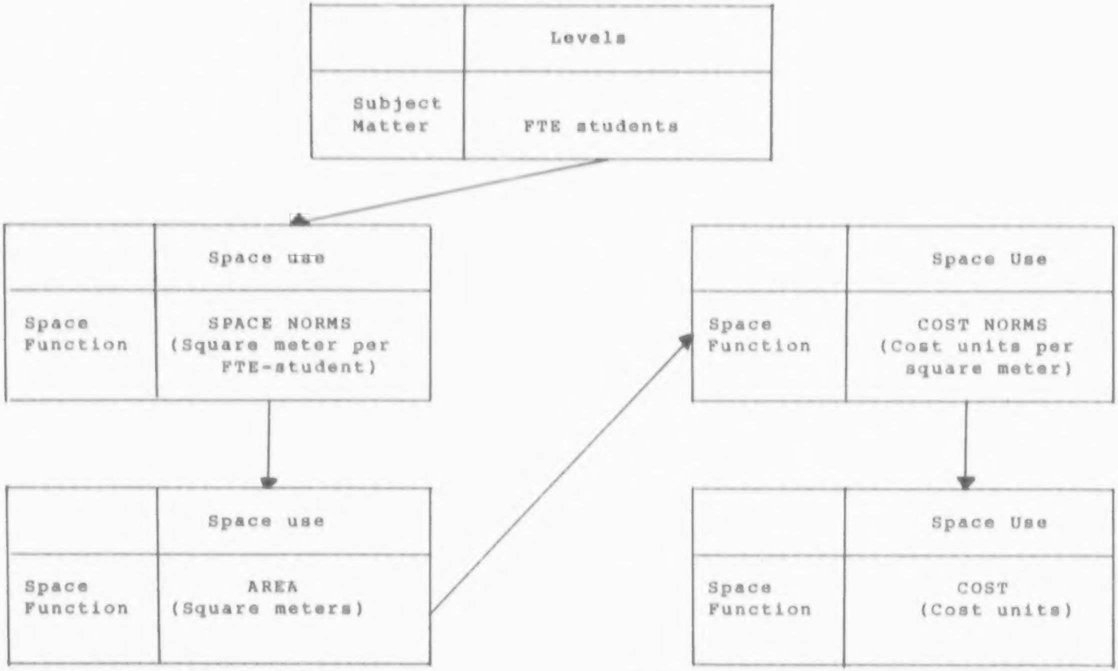
   Cost in cost units = Area in square meters X norm

These use of the norms is illustrated in Figure 4.

For long term physical planning it is necessary to project expected student numbers as accurately and as far as possible in the future, at least 20 years. At Unisa this is done by deciding on an expected average growth rate over that period.

FIGURE 4

THE USE OF NORMS IN PHYSICAL PLANNING


Levels
Subject Matter
FTE students
Space use
Space Function
SPACE NORMS (Square meter per FTE-student)
Space use
Space Function
AREA (Square meters)
Space Use
Space Function
COST NORMS (Cost units per square meter)
Space Use
Space Function
COST (Cost units)

This results in an annual increase of a fixed number of FTE students. In this way planning is based on a liniar growth in FTE student numbers.

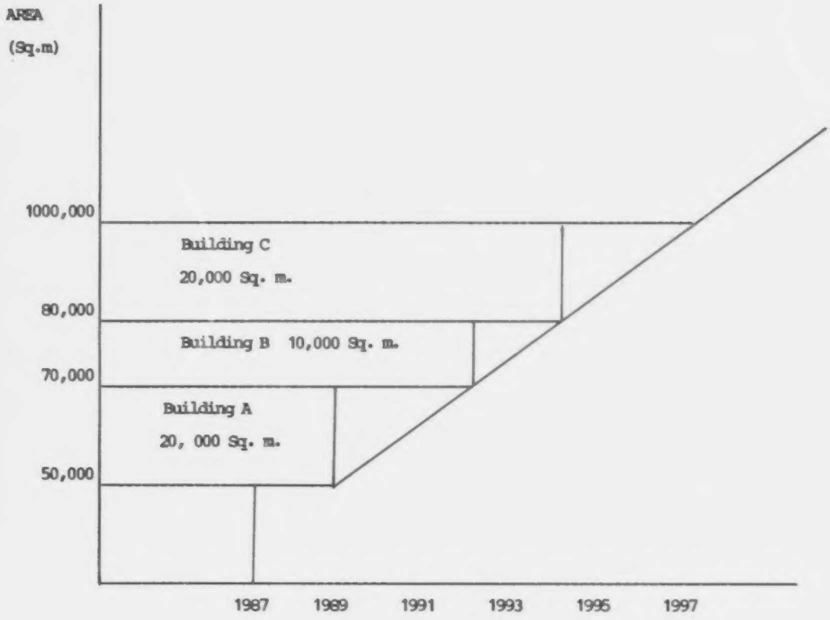
From the expected number of FTE students in every future year the total area of building space needed in each year can be determined.

The layout and erection of future buildings can then be planned by considering very specific internal needs.

The long term physical planning model is graphically illustrated in Figure 5.

FIGURE 5

LONG TERM PHYSICAL PLANNING



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THE NEED FOR A PROFESSIONAL AND EFFECTIVE SUPPORTIVE ADMINISTRATION IN DISTANCE TEACHING

Petrus J Vermeulen
University of South Africa

In discussing the need for a professional and effective supportive administration in distance teaching the first question would probably be: What is effective personnel administration?

C Wayne Vanderwill of the University of Michigan defines effective personnel administration as having the right numbers and the right kinds of people, at the right places, at the right times, acting in a way that provides both the organization and the individual with maximum long-range benefits (Fortunato & Waddel, 1981, p. 4).

This whole issue starts with the personnel department which should be a professional functioning department rendering a professional service by personnel officers who are carefully selected, placed and trained by means of scientific methods. This extends to the rest of the administration where new staff is appointed after recruiting (as widely as possible), and scientific selection, - the latter implying that use is made of scientifically-constructed application forms, psychometric tests and well-trained selection committees, all integrated into an efficient, dynamic selection procedure.

The second leg of selection is training, which is an integral part of staff development and consists of an induction and orientation programme which gives new members a broad view of the composition of the university, its objectives, policy regarding staff matters, benefits and where they fit in.

Further training in the various departments is undertaken by supervisors trained to ensure that induction of new staff members is done in the most efficient way and without loss of time, money, material and human resources. The idea is to develop staff so that eventually the best in everyone can be brought out to the benefit of all concerned.

ADMINISTRATIVE SERVICES

The administration must acquire a vast store of knowledge and expertise in order to provide the supportive service it should render. Kenneth E Eble says in this respect: "In order to give conscious support to the efforts of others, an administrator must find out and keep abreast of what each is doing. Though in large universities this may be a difficult task, it is not impossible. ... Like an able and honest politician, an able and honest administrator must know the people being served and find ways of being accessible and useful to them" (Eble, 1978, p. 82). He further states: "An administrative position carries with it routine responsibilities for locating and identifying sources of support: keeping track of and posting fellowship, leave, and grant opportunities; reminding faculty of deadlines for sabbaticals, grant applications and the like ... . Beyond the routine, then, is the need for an administration to identify faculty members in need of assistance and to devise ways of answering those needs in acceptable ways" (Eble, 1978, p. 83).

COOPERATION AND INTERDEPENDENCE

In order to achieve optimal functioning in the university as an organization there should be close cooperation between academics and administrators, bearing in mind that the whole consists of the sum of its parts. Close cooperation between the various parts must be attained in order to pursue a common goal which, in the case of a university (and broadly seen), is the education of a student body in the most professional and effective way possible. A P Johnston, in Planning and Changing, mentions the following: "The central thesis is that an organization can be viewed as a system of components which are related in some way to other components in order to achieve some goal" (Johnston, Spring 1975, p. 9).

Cooperation then boils down to the fact that there is an interdependence between individuals, sub-departments, departments, faculties and various other bodies within the organization.

Dean Tjosvold, in Human Relations, mentions positive and negative interdependence. The first is to my mind the one that should receive attention and Tjosvold sees it as follows: "In positive interdependence (cooperation), persons perceive that their goals are positively related; one's movement towards one's goals facilitates others' goals. They may have a common goal: all members reach their objective when the project team finishes its task" (Tjosvold, 1986, p. 524).

PLANNING

In order to achieve the best possible level of function planning is essential. Planning must however not be seen as a one-time event but as a continuous action in order to keep up to date with the newest data from which are selected the most suitable procedures and systems for updating and bettering existing systems. This of course implies continuous research for best results. Educational planning is not a new concept and Conrad et al, in Planning and Changing, cites recorded examples of educational planning from as far back as Xenephon's description of Sparta 2 500 years ago in the Lacedaemonian constitution and mentions the following: "As a management tool, planning provides the something extra which gives users a valuable advantage. The time is fast approaching when planning will no longer be just helpful but will be a prerequisite for success" (Conrad, 1973, p. 3).

Emerson C Shuck, in the Journal of Higher Education, observes that not all planning brings encouraging results. However he says: "Such observations are not meant to deny the need for planning, but to suggest that the current doctrines of planning be made with care, and with much greater respect for the complexities of human experience than they have tended to show. Thoughtful professional planners have always said that planning, like computers, is only a tool, and that wisdom and sound judgement are essential to its use" (Shuck, 1977, p. 596).

REAL AND IDEAL GOALS

In planning, the university should conceive an ideal situation and goal towards which development is aimed while taking cognizance of both short term and longer term goals as steps toward the ultimate goal. As development in most spheres of life and especially in management is dynamic continuous adjustments and changes should be made in order to keep up with the newest technology as well as social and psychological changes that affect people in the work environment. Continuous adaption by staff to the changing demands on them as persons may cause various forms of stress with which the individual must cope. This must also be taken into account and accommodated in the whole development process.

Concerning the ideal and the real, Johnston and Wilson, in *Planning and Changing*, note the following: "Concern with the ideal is embodied in the rational method of logical deduction. This mode of thinking translates into the necessity for specifying the desired end(s) and deriving strategies sequentially related to its (their) attainment. Thus, the pure rational procedural basis for planning consists of complete and specific premises and a set of rules to govern the deductive process. Concern with the real world is associated with an empirical procedural base for planning. This experimental and inductive approach is more commonly known by planners as incrementalism. The incrementalist focuses on building up to the desired state by a series of marignal deviations from recent past experience and conditions" (Johnston, 1977, p. 135).

INFLUENCE OF ADMINISTRATION ON STUDENTS

The administrator's influence reaches further than the support he gives to the academic. It also reaches out to the student who is dependent on the administrator for the commencement and confirmation of his studies. This comprises the registration of students, guidance in selecting curricula, administration of accounts, library services, issue of study materials, organising and supervising examinations, processing examination results and eventually the organising and awarding of diplomas and degrees. All these activities fall outside the scope of the academic and he is free from any encumbrances in this area. He is thus freed to pursue his function of teaching the student in an efficient and professional manner.

One should always bear in mind, therefore, that the student's first contact at a university is with the administrator who starts the process of study by performing the abovementioned administrative duties without which, naturally, study is not possible.

Take UNISA, for example, in the case where a student registers in person. His first contact is with a security checkpoint, where security personnel allow him into the building and guide him to the enquiries office. From there he is directed to the correct official in either undergraduate or post-graduate student affairs, where he registers. From there he goes to the finance department where he pays the required fee and, finally, he ends up in the despatch department where he receives his study material. Five administration departments in all and as yet he has seen no lecturer. His first contact with the lecturer is only after he commences his studies.

It is generally accepted that first impressions are lasting impressions and the student forms his first impression of the university via the administration. One should never underestimate the value and importance of first impressions, because they tend to give an impression of the organization as a whole and not only of the small part with which the student comes into contact.

If the student gets the impression of a courteous, efficient and professional administration, he carries this impression over to the academic, which actually helps to make the academic's task easier. His teaching will be more readily accepted as the student is already predisposed towards efficiency and professionalism. This of course places a certain responsibility on the academic. The reverse is also true.

ADMINISTRATION IN ACADEMIC DEPARTMENTS

Apart from the broader administration there is often a mini-administration in each academic department. This consists of a secretary who works in close cooperation with her departmental head (or dean of faculty) and academic colleagues. Larger faculties and departments may have extra typists, or perhaps an administrative staff member to cope with immediate faculty or departmental administrative problems. They need consequently to supply the same supportive service in their mini-environment, as does the broader administration in the maxi-sphere. Such staff members should consequently be subjected to the same selection and training procedures as the rest of the administration, especially as they have to possess a wide spectrum of administrative skills in order to properly support their academic colleagues.

Allan Tucker notes the following: "Clerical, administrative, and professional employees known as support personnel, are invaluable to the chairperson in carrying out the department's functions. Since staff members are often the first persons whom a visitor to the department encounters, the chairperson should insist that courtesy be shown to everyone, especially students, whether in person or on the telephone. The effectiveness of staff members, of course, is determined by the quality of their training. ... A new secretary must learn not only what to do and how to do it, but also whom to ask for help - for example, whom to call when a payroll error occurs or whom to contact when a purchase order needs special handling" (Tucker, 1984, p. 373).

CONCLUSION

As mentioned earlier there needs to be an awareness of the close cooperation and interdependence that exists between the various entities of the organization. If in the light of this, each accepts and respects the expertise, knowledge and competency of the other, and becomes aware of the problems that exist, good communication continues, and mutual understanding and trust develop to the benefit of both the university and the student body.

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THE UTILIZATION OF COMPUTERS AT UNISA

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1. INTRODUCTION

The University of South Africa (Unisa) is the largest university in South Africa and on the African continent, and it differs from the other universities in this country because it is based almost entirely on distance education. The basic form of communication between the students and the university is by means of printed material which is sent by mail to the students.

Table 1 shows the magnitude and the geographical distribution of the student body of Unisa for the 1986 academic year.

TABLE 1

GEOGRAPHICAL DISTRIBUTION OF STUDENTS (1986)

REGION	N	%
South Africa	75 924	90,34
Rest of Africa	7 420	8,83
Europe	420	0,50
North America	118	0,14
Asia	72	0,09
Australia	64	0,08
New Zealand	14	0,02
South America	8	0,01
TOTAL	84 040	100,00

Unisa has six faculties - Arts, Economic and Management Sciences, Education, Law, Science and Theology - comprising 56 departments and 16 bureaux, centres and institutes. The number of teaching and research staff numbers 1 226. At the end of 1986 more than 2 800 different undergraduate examination papers were written in 540 examination centres throughout the world. The administrative component of Unisa consists of 26 departments with a staff corps of 1 577.

In this paper a historical review of the development of computerization at Unisa will be presented. Attention will also be given to the different software systems in use, the scientific or research computer system and, as a conclusion, future developments will be mentioned.

2. COMPUTER AND SOFTWARE SYSTEMS

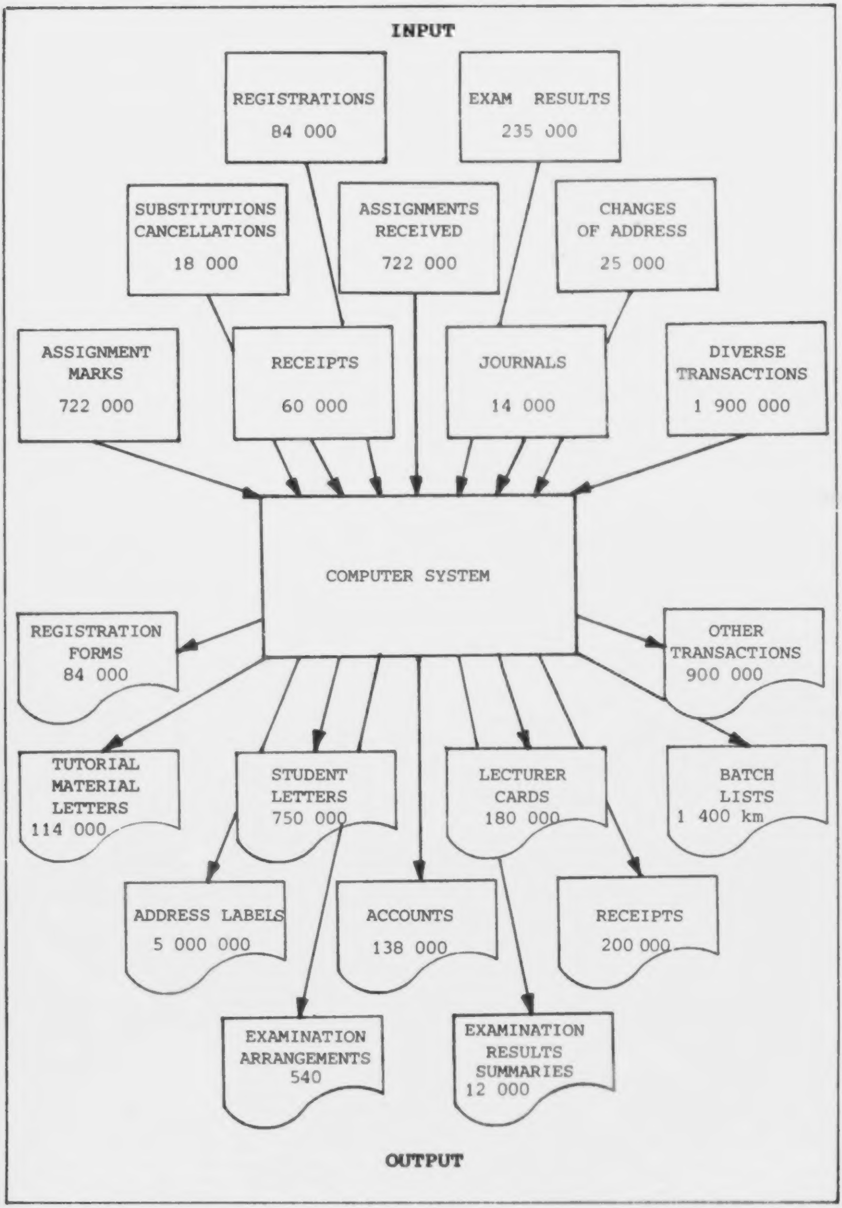
2.1 Historical review on computerization at Unisa

Computerization at Unisa started in the early sixties with the compilation of student statistics using a mechanical sorting machine equipped with a counter. At that stage student enrolment amounted to about 10 000. A few years later a tabulator was set into operation for the compilation of student mark summaries and examination results.

In 1965 the student enrolment was almost 20 000 and that made it economically feasible for Unisa to rent its own computer system (ICL 1902A). The first Burroughs computer (B5700) was installed at Unisa in 1972. This system was upgraded several times to a Burroughs B6700, two B6800's, a B7800, and two B7900's. The present computer systems consist of two Burroughs A15's and a PERSETEL 7/72.

About 260 VDU terminals, 30 PC's and 176 network printers, scattered over the campus, are connected to the computer systems. Terminals at the regional offices in Pietersburg, Cape Town and Durban are linked by dedicated telephone lines to the computer systems on the main campus.

FIGURE 1: VOLUMES OF PROCESSING (1986)


INPUT
REGISTRATIONS 84 000
EXAM RESULTS 235 000
SUBSTITUTIONS CANCELLATIONS 18 000
ASSIGNMENTS RECEIVED 722 000
CHANGES OF ADDRESS 25 000
ASSIGNMENT MARKS 722 000
RECEIPTS 60 000
JOURNALS 14 000
DIVERSE TRANSACTIONS 1 900 000
COMPUTER SYSTEM
REGISTRATION FORMS 84 000
OTHER TRANSACTIONS 900 000
TUTORIAL MATERIAL LETTERS 114 000
STUDENT LETTERS 750 000
LECTURER CARDS 180 000
BATCH LISTS 1 400 km
ADDRESS LABELS 5 000 000
ACCOUNTS 138 000
RECEIPTS 200 000
EXAMINATION ARRANGEMENTS 540
EXAMINATION RESULTS SUMMARIES 12 000
OUTPUT

At peak times the systems handle approximately 30 000 transactions per day. The total number of computer transactions for 1986 is betweem 3,5 million and 4 million. The volumes of processing for the 1986 academic year are illustrated in figure 1.

Unisa saw the necessity of computer facilities for it's students, and during 1986 four micro computer laboratories were established. The biggest one, situated in Pretoria, is equiped with 20 micro's while the other three, situated in the regional offices of Unisa, with 8 micro's each. Students from certain departments use the laboratories to develop and to test their computer programmes.

2.2 Student systems

Although a great deal of scientific computing is carried out, the administrative function amounts to about 57% of all computer use (previously, before the installation of the reseach computer in 1986, the administrative computer usage was 90%). This is due mainly to the unique characteristics of a distance education university for example, the extensive despatching function of tutorial material, the enrolment of students, cancellation of courses, and the controlling of student assignments and marks. All these factors have an important bearing on the design considerations of a computerized student administration system.

Registration system

Student enrolment can be a tedious task, but with the assistance of the on-line, real-time, student registration system (installed in 1983) it was possible to register the approximately 84 000 students in about 12 weeks.

A student may register by mail or in person at the main campus or at any of the three regional offices. Before registration commences (on 1 November), all students currently registered

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are provided with a registration form, preprinted by the computer. These forms contain all the necessary information, such as the student's name, address, course credits and other personal information. All that the student has to do is to add the new courses for which he wishes to register. This makes the input of data easier and also reduces errors.

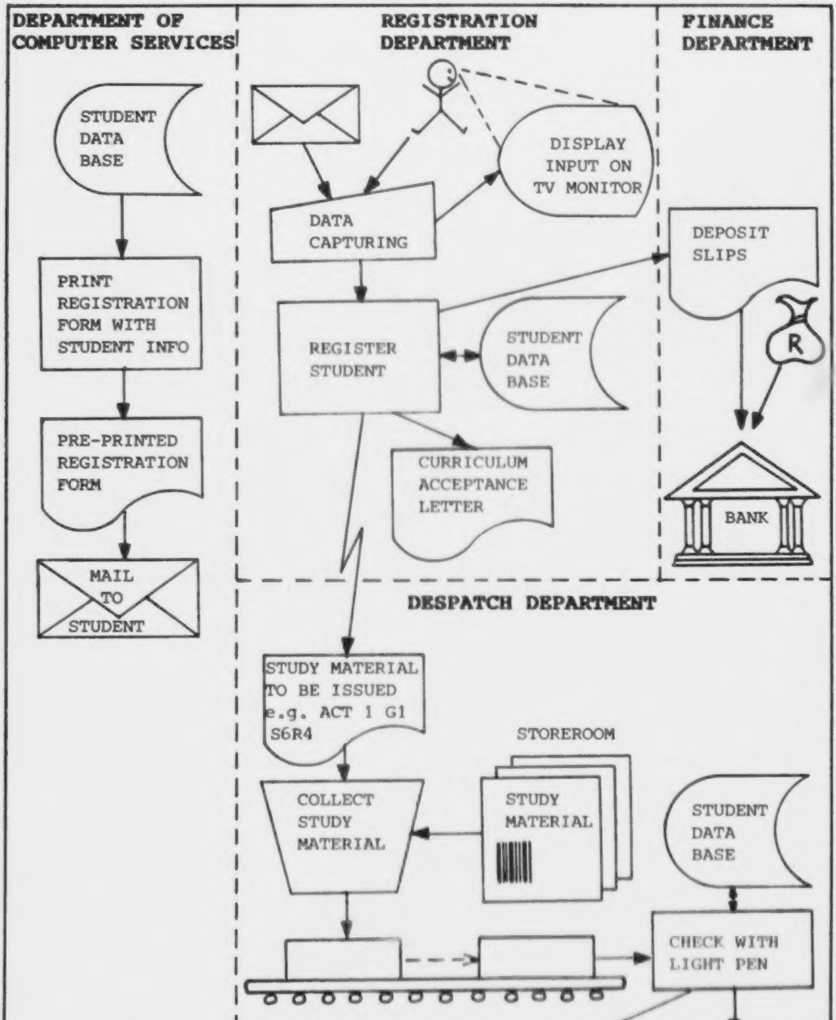
All student registrations are handled on-line as illustrated in figure 2. Every registration terminal is fitted with a monitor for the student to ensure that all his/her data are entered correctly. Before a registration is accepted, all the necessary checks, such as prerequisites and parallel requirements for courses or modules, are performed. A deposit of fees is entered and, after successful registration, a curriculum acceptance letter is printed on-line. This letter contains information on the courses or modules, the examination dates, the examination centre and the fees received with the registration.

At the same time as the acceptance of registration, an advice letter is printed at the despatch department. This advice letter contains a list of all tutorial material to be issued to the student. The corresponding position on the shelves in the store is printed next to each item. The sequence in which they appear ensures that the storeman will take the shortest route to collect the tutorial material from the shelves (the average distance covered by a storeman on peak days is about 16 km).

Regional offices have limited stocks of tutorial material and any item out of stock at registration is automatically issued from the main store and mailed to the student.

Study guides and tutorial letters have a bar code printed on the front cover. The bar codes on the items are checked by means of a light pen to ensure that each student's study package is complete. While this is taking place, a student identity card is printed which is then handed to the student with the study package, or sent to him or her by registered

FIGURE 2: STUDENT REGISTRATION PROCEDURE


DEPARTMENT OF COMPUTER SERVICES
REGISTRATION DEPARTMENT
FINANCE DEPARTMENT
STUDENT DATA BASE
PRINT REGISTRATION FORM WITH STUDENT INFO
PRE-PRINTED REGISTRATION FORM
MAIL TO STUDENT
DISPLAY INPUT ON TV MONITOR
DATA CAPTURING
DEPOSIT SLIPS
R
REGISTER STUDENT
STUDENT DATA BASE
CURRICULUM ACCEPTANCE LETTER
BANK
DESPATCH DEPARTMENT
STUDY MATERIAL TO BE ISSUED e.g. ACT 1 G1 S6R4
STOREROOM
COLLECT STUDY MATERIAL
STUDY MATERIAL
STUDENT DATA BASE
CHECK WITH LIGHT PEN
STUDENT REGISTRATION CARD

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mail. On peak days up to 2 600 students register without too much difficulty.

Examination time-table scheduling system

A unique interactive examination time-table scheduling system (INTEKS) was developed by two Unisa staff members, and was put into operation during 1980. The system takes into account not only the **lecturers** who consider a time-table favourable if it provides for the maximum possible number of days for marking of scripts and processing of marks, but also the **students** who prefer their papers to be spaced as evenly as possible. The system also takes the following constraints into account:

- All permissible subject combinations should be included in the time-table;
- The number of students per session may not exceed a given limit;
- The number of sessions should be limited.

Examination arrangements system

An examination arrangement system sees to examinations for more than 235 000 student papers written at 540 examination centres. Student admission to the examination is determined, the number of scripts and examination papers for each centre are calculated, and the invigilators are informed of special instructions.

Assignments control system

A student's progress is monitored by means of written assignments he sends in. These assignments are centrally registered and then sent to the lectures for marking. Subsequently the marks are also recorded and this forms the basis for examination admission.

Multiple choice marking system

This is an extensive marking system which entails the use of special pre-perforated punch cards. Students indicate their answers by perforating the specific positions on the card. The system "marks" the cards, updates the student data base and provides various statistical analyses of the student's answers, from which a qualitative evaluation of the questions can be obtained. More than 150 000 response cards were processed during 1986.

2.3 Library systems

The Universty's Sanlam Library possesses an extensive collection of books, journals, audiovisual material, and micro-material, totalling more than 1,25 million items. All items are (subject to the relevant regulations) at the disposal of registered students. The library computer systems deal with the following:

- Acquisitions
- Lending sevices
- Cataloque
- Information retrieval
- Literature searches via an international network.

2.4 Financial systems

Budget control and general ledger system

Budget control in an university enviroment is a very important task because the income (student fees and government subsidy) for a financial year is fixed, and expenditures have to be carefully monitored.

Fixed assets control system

The fixed assets control system contains all the information pertaining to Unisa's fixed assets. This information is necessary for auditing and it also serves as a basis for insurance purposes.

Stock control system

This system keeps track of items of information on all consumable goods, for example the quantities in stock, the cost-price of the items, items on order, items received, items issued and the minimum and maximum levels.

Personnel and pay-roll system

Besides the functions normally performed by a system of this kind, this particular system also provides statistics tailored to statutory requirements. Staff salaries and other payments into bank and building society accounts are transferred by means of magnetic tape via a clearing bureau.

Telephone call control system

All outgoing telephone calls are registered automatically and information retrieved from the system includes the number of calls per extension line or staff member, calls exceeding specified time limits and total telephone usage per department.

2.5 Management information retrieval system

Sophisticated informatiom retrieval systems have been developed for internal management information and governmental reporting. Using student enrolments as a basis, the governmental subsidy can be determined as well as the internal departmental budgets, the creation of new posts, the allocation of office space in existing buildings and the long-term planning of new buildings. Other information that can be retrieved includes details of qualifications, fields of study and credits of students, student statistics, person-power statistics, financial statements, fixed assets statements, and statistics concerning building and space requirements.

2.6 Scientific computer systems

The scientific and research computer usage rose from a mere 10% to 43% after the installation of the scientific computer in 1986. All popular software systems, such as SAS, BMDP, GENSTAT, HARWELL and IMSL, are available to scientific users and researchers.

3. CONCLUSION

At the moment computer-based education (CBE) is used only to a small extent by a few Departments. In future this powerful tool in education will receive more attention, with funds having been made available to the Bureau to establish a small CBE unit.

It is also envisaged that a network system will be developed. This will make it possible to link up with any other computer system on site. Departments will have direct access to the student data base, the library, the Editing Department, and various other systems.

In conclusion I want to repeat the view of the Vice-Principal (Research) expressed in his paper at a seminar on "Unisa and Advanced Computer Technology": that is, **all** future developments in Unisa's computer technology must be to the benefit of **all** students (wherever they may be) in order to give them a better service.

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THE DISABLED DISTANCE EDUCATION STUDENT: PROBLEMS AND POSSIBILITIES

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On 31 October 1986 twelve disabled people received the Excelsior Award from the State President in recognition of their remarkable achievements and services in aid of other disabled people. The recipients ranged from a young boy to sportsmen but it is significant that all but one of those who attended university were Unisa students (Robertson 1986:23). These five individuals are leaders in the disabled communities, they are actively involved in improving the quality of life of others who are impaired, they serve as inspiration and role models for some who still struggle with rehabilitation.

In his address at the closing of the academic year 1986, Professor Theo van Wijk quoted the Vice-Chancellor of Everyman's University in Israel who said that 'The main strength of the University should be in the making of the individual. Universities have neglected the basic function of training the leader in society, the individual who can lead and innovate' (Van Wijk 1986b:8). As far as the physically disabled are concerned Unisa has done its fair share and may play an even greater role in future.

Compared to the student population at Unisa, the number of disabled students seems small: 0,75 per cent appears negligible yet in terms of courage and perseverance these 633 students represent a significant achievement (see Addendum A). For the normal student study at Unisa is not easy (Van Wijk 1986a:1). For the disabled student who finds himself handicapped by much more than his disability, the Unisa way of studying is still the easier way. Obviously distance education eliminates physical barriers which are very real obstacles to mobility impaired students, but teletuition also allows the student to schedule his work according to his capabilities, health and the often time-consuming modifications necessitated by his impairment. For the severely disabled it might be the only way left to study. In fact, in the United Kingdom the contribution of the Open University is described as producing 'the most remarkable inroads into the whole problem of further education for the disabled' (Panckhurst 1980:35).

That Unisa presents the obvious solution for impaired students seeking tertiary education is borne out by the numerous overseas students. It is significant that there are a fair proportion of postgraduate students among them and that they prefer to study through Unisa though their own countries offer and even mandate supportive systems and aids for the disabled (Hähnlen; BenAvraham 1986:1).

Physical disability is the term used at Unisa to denote an impairment whether it is orthopaedical, neural or sensory. On registration students are required to indicate if they have a disability; the categories are blind, cerebral palsy, deaf and other. There is no indication as to the severity or degree of impairment and especially the 'other' disability ranges very wide: it comprises anything from a slight limp that does not affect the student's studies in any way to complete paralysis from the neck down.

Comprehensive computer data concerning disabled Unisa students are available only from 1983 onwards; as far as special examinations are concerned complete particulars were only available for 1986. Computer printouts were studied to get more information as to disability, courses, degrees, academic achievement, age and years of study. Working from these data student files were drawn to further investigate academic success, problems encountered and any other particulars that seemed relevant to a disability or that could help to give a more detailed image of the disabled student at Unisa. To add to the perspective a number of students were contacted to discuss their problems, motives, approaches, coping skills, failures and academic achievements. With their help, as well as the aid of the SA National Councils for the Blind and the Deaf and schools catering for the needs of disabled children, other and older students were traced to help in filling in the details for a more complete picture of the disabled student.

Why do disabled students study?

- Their lives are often restricted by their impairment, be it physical or sensory. Study provides the key to many doors; it stimulates the mind to explore new directions. Once the informational barrier is overcome, the blind or deaf person is no longer handicapped by a disability but limited only by his own inherent ability.

- As they are frequently housebound and mobility impaired, it is a constructive way and psychologically sound principle to develop their intellectual capabilities. This is recognised by the Northern Transvaal Quadriplegic Association which encourages its members to study: a quadriplegic's study expenses are reimbursed but only after he has obtained his degree.

- They frequently experience non-acceptance, not only among their peers but also in the social environment of the larger community. It is difficult to retain a polished self-image if society casts one as an outsider, a person lacking in the essential properties of a normal individual. The disabled individual may find it necessary to prove, maybe to himself but especially to others, that he is a worthwhile person. Society places a very high value on academic achievement; it is a way to earn respect and acceptance. This is especially true in a work-related environment where a disabled person often finds that he not only has to perform better than his colleagues but he has to be better qualified as well before he will be considered on an equal footing for promotion.

- There is a direct correlation between career opportunities and academic achievement; advancement or frequently just the slightest possibility of a more congenial job opportunity is a highly motivating factor.

- Utter boredom and frustration are compelling forces, especially once it becomes clear to the disabled person that he's tied for the rest of his life to a career choice that has been dictated by his disability, not his intellectual capacity. Not everyone can become a lawyer, but that does not mean all the other blind will be happy as switchboard operators.

* Disabled people are quite often lonely with a very restricted social life - they do have the time to study.

* Study is a very effective means of rehabilitation after one's life had been shattered by a bomb or car accident. It can be a desperate, almost panic-stricken attempt leading inevitably to failure if the study skills necessitated by the disability have not been acquired. Despite the odds these students succeed invariably if they start off well prepared: they are highly motivated and can usually count on a supportive home environment and a sympathetic employer.

General overview

It must be kept in mind that the disabled students are as varied as all the other Unisa students. They are handicapped in their studies to a greater or lesser degree by the severity and nature of the particular disability. It is easier to discern a pattern for the deaf and the blind because their disabilities are more closely defined and they are more homogeneous groups; with them, as with the other students, academic success seems to have a greater correlation with a student's ability than with his disability. In general though there is an initial high drop-out rate after first registration, a seemingly desperate group where one course after another is tried with varying degrees of success, and a surprisingly large number of students doing very well indeed. They seem to be highly motivated, get excellent marks and a proportionately high number are awarded merit bursaries. They often start off with one non-degree course, then settle down to obtain a first degree in four years before carrying on to postgraduate study.

More definite patterns emerge for the blind and deaf student. The deaf have a high drop-out rate, very few progress beyond a first-year registration and a very small number achieve academic success. The blind also have an initial high drop-out rate but those who do carry on do remarkably well. Among the cerebral palsy students the drop-out rate is not quite as high; in the period for which comprehensive statistics are available they are the smallest group (16, 17, 21 and 20 respectively) and had two students with marks well above 80%.

All the other disabilities are grouped together and the only discernible trait seemed to be perseverance.

In a few cases the perpetual student emerged: enrolling for course after course and degree on degree, starting off with BIuris, then BA, followed by BTh, a man structuring his life round Unisa study.

The older student is well represented; he is in his sixties, sometimes enrolling for a first but mostly for a second degree, almost always completely different to his first degree obtained 30-40 years earlier. Among these students there were very few drop-outs and their marks were above average (65%+) to excellent (80%+).

Problems and difficulties

No general preference as to degree could be found in the cerebral palsy and 'other disability' group, though Psychology and Biblical Studies were favourite first-registration courses. The degree of impairment varies greatly; the student might be severely hampered by his lack of motor co-ordination or his inability to use his hands. Where he might have experienced many mobility obstacles and physical barriers at a residential university, Unisa's teletuition method provides accessibility to the courses in his own home. The type and degree of impairment determine study methods and other necessary adjustments and aids. These can vary from a pointer affixed to the head for typing to an amanuensis who helps in writing assignments. These severely disabled students need a more elaborate support system in the home environment in order to cope; there are only a few (five wrote examinations in 1986) and university study is a major component in their lives, providing structure to their days and holding out hope for the future.

The other two disability categories concern the sensory impaired and more specifically blind and deaf students. Those who are hard of hearing or partially sighted classify themselves under 'other' disabilities. Like the student who became deaf at a later age, after language acquirement, the hard of hearing do not have insurmountable problems in using study guides, whereas the prelingual deaf find the language used in tutorial material almost incomprehensible because of their impaired language acquisition. The partially sighted need proper equipment to read study guides and though it can be a great strain, they usually use the ordinary guides. To the blind Unisa's main medium, the printed word, is inaccessible unless transcribed in braille or recorded on tape.

As far as the Unisa disability categories are concerned, blind and prelingual deaf students are hampered to a greater degree by their impairment because their primary study sources, the study guides, are inaccessible or incomprehensible in their conventional form. That is the main reason why many courses are closed to blind students at Unisa. The predicament of the prelingual deaf student has not been fully realised and no attempt has been made to help him in his studies, but neither has he been barred from any courses.

The advent of the microcomputer

The advent of relatively low-cost microcomputers has provided a new and potentially powerful tool for the disabled. 'The powerful sensory, computational, memory, and display capabilities of microcomputer systems and their compact size offer new opportunities to relieve functional deficiencies associated with loss of limbs, paralysis, speech impediments, deafness, and blindness' (Meindl 1982:792). In fact, 'the use of microcomputers as processors or controllers could aid - to some degree - almost any aspect of human activity that has been impaired' (Vanderheiden 1981:54). Previously insurmountable problems can be overcome; for tertiary education application areas include the following:

- sensory enhancement or translation;
- manipulator controls;

* information amplification for the motion impaired;
* special control interfaces to other devices;
* development aids;
* education - educational aids and computer education;
* communication - phone, writing, and conversation aids;
* cognitive and language processing assistance;
* information resource/management;
* nonspecialized, general uses - computing, word processing, and control systems for work/home; and
* combinations of the above, one driving another'. (Vanderheiden, op cit.)

These devices make tertiary education possible for people who have up to now not even attempted it, for instance:

> Microcomputers form powerful tools that need only a light touch to operate them, which is especially helpful for the neurally disabled or quadriplegic student or those with muscular weakness.
>
> Computer aided instruction has been found to be a very valuable aid in the tuition of deaf students. It has been used in this country by Control Data, Siemens and Olivetti. Its application in tertiary education can greatly benefit deaf students.
>
> Computers, and especially microcomputers, brought about a complete change in study methods for the blind. The advances made in the equipment for the blind, especially devices that can be used for study purposes, can be attributed to inter alia
>
> * computers are cerebral machines, very well suited to the needs and abilities of blind people;
> * the blind had a well-established communication code, eminently suitable for programming purposes: braille;
> * there are numerous blind people, holding out the hope of making research and development a commercially viable proposition.

For disabled distance education students the microcomputer brought about a completely new approach. Special keyboards, joysticks and software enable them to utilize the computer as an integral part of their study system. It becomes a physical extension to their functionally disabled bodies; they can use it to manage their study environment.

Among Unisa students there is a noticeable trend - a growing number of disabled students register for Datametrics, Computer Science or Information Systems. They do exceptionally well.

The following points are noteworthy and apply especially to the severely disabled:

* The microcomputer becomes a major component in their lives. Most accidents resulting in para- or quadriplegia occur between 19-29 years of age, in the prime of life, at the very start of a career. These students find this intellectual machine a congenial companion: it responds to their needs, is infinitely patient in repeating information and in waiting for orders (which might be slow in coming because of motor or sensory impairment), and when it does get orders, it executes them immediately and effectively.

* One of the most important factors is that computer mastery or even literacy provides a door to employment. At the moment there is a tendency to stick to a computing career, but it is certain to spread to other fields where the computer becomes a medium to master other subjects, a tool to control a working environment, opening up many more career opportunities for the disabled. 'Computers have substantially increased the variety and quality of job opportunities available to handicapped and homebound individuals. The intellectual character of the work that they can now perform is more challenging. Both personal and economic rewards are greater. The handicapped person can now engage in computer science and engineering, data processing, accounting, and bookkeeping, fields of gainful professional employment in which there is considerable outside contact through computer terminal, telefacsimile, and telephone' (Meindl 1982:796).

- Two associations were started in recent years in South Africa to help the disabled in fully utilizing computer potential. They are COMAD, Computer Aid for the Disabled, started in May 1985 at Infoplan, Pretoria, mainly to provide information and assessment; and Interface, started in July 1984 in Cape Town. The latter adapts both computer hardware and software and investigates the appropriateness of existing material to suit the specific needs of a disabled person.

What is being done elsewhere?

In recent years there was a great upsurge in tertiary education for the disabled in all parts of the world. It can be ascribed to

1) greater awareness of the needs and abilities of disabled people, stimulated by the International Year of the Disabled in 1981 and the ongoing 10-year programme of the UNO. The increasing level of concern is fueled by greater assertiveness of disabled persons who claim equal consideration and opportunity.

2) the advent of the computer age. Rapid electronic and technological advances make the formerly impossible, possible.

3) Where moral and ethical norms previously governed university regulations and policies towards the disabled, in the USA for example it is now mandatory for institutions to make academic adjustments for the disabled. According to the Rehabilitation Act of 1973 these adjustments include inter alia

    - 'not imposing rules ... that limit the participation of handicapped students.
    - conducting course examinations in a manner that ensures that the results represent the student's achievement in the course, rather than reflecting the student's handicap.
    - providing auxiliary aids (taped texts, interpreters, etc.)' (The President's Committee on the Employment of the Handicapped 1980:85).

This law concerns us in South Africa because it has several important consequences for disabled people in this country as well:

- Since the law mandated equal educational opportunities for the disabled, a tremendous amount of energy and research was spent on improving the tuition of the disabled.
- There was and is a proliferation of aids and equipment (cf. Tombaugh 1981:222-225), of computer software and hardware for special needs (Vanderheiden 1983) since the production of these aids suddenly became a commercially viable proposition (Aylor et al. 1981:35); these aids tend to be very expensive for the individual but many institutions provided equipment for their students and the increased demand meant greater production at lower cost.
- Disabled people who are successful students, academics and professional people serve as role models and information resources for coping skills and strategies (Owens et al. 1979:iv).
- In providing for the special needs of the American disabled, handicapped people all over the world stand to benefit - not only because of the spreading ripple-effect of better teaching methods, knowledge gained by research and less expensive aids, but also in direct ways, e.g. textbooks taped in America are available free of charge to South African blind students. (These recorded books are obtained through the Library for the Blind in Grahamstown.)

Where legislation in the USA is largely aimed at the removal of barriers to provide equal opportunity and guaranteed accessibility, the Open University in England has recognised that many of these barriers don't exist as far as the distance education institution is concerned. They have moreover a definite policy of provision for disabled students; in 1979 they had 1 200 students 'in need of some sort of special service' (Tomlinson, quoted in Panckhurst 1980:34). 'There is a Disabled Student's Area ... which supports disabled students directly, and co-ordinates the support given by the staff in the 13 OU regions. Adapted course materials are provided according to disability and a study-skills package, intended for use by visually-impaired, hearing-impaired and manually-impaired students is available. Special help is given to hearing-impaired students on certain specified weeks' (Panckhurst, op cit.).

Few other universities actively encourage disabled students to enrol.

Aid and concessions at Unisa

All Unisa buildings are accessible and comply with the legal requirements; new lifts have been installed in the Cape Town Regional office and toilet facilities have been modified. The main campus is not easy to negotiate in a wheelchair because of the steep inclines but special parking bays are provided at all the accessible entrances.

For the blind study guides are taped for certain courses; in 1986 fourteen students made use of this service; R5 000 is annually budgeted for this purpose.

Special concessions are made in examination procedures; time limits are extended (doctors' recommendations are followed) and special venues and invigilators are provided for a set fee. In special cases examinations may be written in the student's own home. For the visually impaired examination papers are provided on tape, in braille or in enlarged print. Exams may be typed, tape recorded or taken orally. Use of an amanuensis has been allowed in a couple of cases and in 1986 a specially cleared microcomputer was allowed. Altogether 80 students wrote special examinations in 1986; this necessitated a great amount of time-consuming organization, especially because the examination venues were scattered all over the country, and in fact included isolated farmhouses as well as overseas embassies.

Special examination procedures tend to concern only the visually impaired and those students who cannot use their hands: for other impairments extended time limits usually suffice.

In most cases disabilities present no problems to Unisa although impaired students are strongly recommended not to register for Social Work. If they want to, they must appear before a selection committee. Screening criteria include evaluation of mobility and speech impairments, of personality traits and adjustment to own handicap, whether the student would need assistance in work and transport and if he can find an organization where he can do his practical work.

The only disabled group that causes problems is the blind because the printed word, Unisa's main medium, has to be transposed in an accessible form. Blind students are barred from 58% of the undergraduate courses offered by Unisa. (This ruling came into effect on 2 September 1981; it has since been modified: after representations and consultations with departmental heads altogether six exceptions were made in the academic years 1983 to 1986; five of these students did very well, the sixth did not even hand in one assignment. In 1987 restrictions to three other courses were lifted.) Obviously Unisa would not take such measures without reason and it is with a view to addressing these problems that a major portion of the paper is devoted to blind students.

The blind student

Among the inhibiting factors in presenting study material to the blind are the following: the course content is visually oriented and presented; the content becomes incomprehensible if read to the student, he has to read it himself; diagrams and graphs are used to explain concepts; the courses and degree lead to a career that cannot be pursued by a blind person; tables, statistical data and the manipulation of numbers and columns form an integral part of the course. Other objections include the amount of reading and independent research required by the course as well as expert knowledge required to tape the study material intelligibly.

Most of these are valid reasons and most courses at Unisa would present one or other problem to the blind. It is also true that there are solutions and very few obstacles will stop a motivated and intelligent blind student with a proper support system.

A well-organized support system is imperative. This includes the assistance of knowledgeable sighted persons at times as well as services provided by agencies like Tape Aids for the Blind, the SA Library for the Blind and Pioneer School in Worcester. Advance planning in requesting and recording of textbooks and proficiency in special study skills are requisites, as are basic tools like a typewriter, a braille machine and tape recorders. Specialised equipment is a great help but not an absolute necessity except where it is a prerequisite for the course content, e.g. a microcomputer for Computer Science. Bursaries and interest-free loans for necessary equipment can be obtained by blind students from the SA National Council for the Blind.

'Problem' subjects where the course content contains one or more of the objectionable features that are seemingly inaccessible to blind students have been mastered by the blind at Unisa as well as other universities in South Africa and of course overseas. These subjects include Mathematics, Statistics, Computer Science and the economic and management sciences, all of them replete with graphs, diagrams, tables, formulae, figures and visual presentation. The students did not find it easy, they could not have done it without the help of their own network of support and their universities' flexible attitudes in allowing valid but alternative examination procedures, **but** they obtained their degrees cum laude and were the recipients of special awards and merit bursaries.

Nobody claims that it is easy for a blind student to do advanced management accountancy, everyone would say it is impossible for the blind to do History of Art - the point is, it has been done.

It presents us with an interesting case study. Dr William Rowland enrolled for History of Art before blind students were barred from some Unisa courses. He established his own network of experts who described the relevant works of art to him and who reproduced the paintings on an enlarged scale, using pinpricks and raised dots of various sizes and densities to represent the figures and design. He used colour charts (available in some art books) to learn the colours of the paintings (he can recall colours, he became blind at five years of age). According to his lecturer he had amazing insight in the philosophy and iconography of art, especially the mythical content of Renaissance art. He obtained 90% for his course and his lecturer who experienced terrifying panic and felt quite inadequate when she first realised he was blind, maintains that he was one of her best students.

This case study illustrates a few important points:

- It is easy to underestimate a disabled student. He can display a great deal of initiative and resourcefulness and he might use an altogether different but feasible approach which never occurred to the lecturer. 'Educators unfamiliar with handicapped persons may focus only on the perceived limitations the students must bear as a result of their impairments. These views often arise from the natural tendency of able-bodied individuals to imagine themselves performing their work-related tasks if blind or from a wheelchair... these "imaginative" educators have failed to consider the abilities of disabled individuals who have had years, or often lifetimes, of experience coping with and adapting to a world designed for the able-bodied' (Blumenkopf 1981: 218).

- A blind student needs sighted assistance, people who are willing to help, sometimes at short notice, while at other times their services must be available for a long-term project. More specialised and advanced study needs more knowledgeable and even expert help. The student must organise his network of support according to his needs and abilities.

- Courses which are seemingly inaccessible to blind students, which they apparently cannot 'use' because they lack sight, should not be closed to them because of their perceived inability to benefit from it. How many first-year History of Art students can claim that they encouraged art appreciation in their community to the extent this blind student did by establishing a touch gallery at the SA National Art Gallery with introductory art courses for sight-impaired schoolchildren and exhibitions for all sight-impaired individuals?

* Attitudes often play a decisive role in a student's success or failure. Although the lecturer felt herself at first unable to cope with the demands a blind student of History of Art might make on her, she gave him a fair chance and was agreeably surprised. A study conducted at the University of California investigated the effect of personal contact between college professors and physically disabled students on the preconceptions the professors had about handicapped persons. According to this report 'Those faculty who had taught disabled students or had known disabled colleagues overwhelmingly reported that the contacts raised their opinions of the disabled. Thirty-two times as many faculty reported contact raised their opinions of disabled people as reported that contact lowered their opinions of disabled people as a whole' (Finnegan 1979).

There seems to be a correlation between this finding and the fact that the Department of Musicology and the Faculty of Law at Unisa don't exclude blind students from their courses which lead to the traditional careers in which blind individuals have excelled. Quite a few music and law students have been poor to fairly average. Yet this did not lead Musicology to lower its high entry requirements for the disabled nor did it lead to any diminished effort on the lecturers' part - they go out of their way to accommodate blind students, time-consuming as it might be. Intensive and extensive reading is part and parcel of a law course but the Faculty of Law does not exclude blind students because of the amount of reading they have to do - an objection in some other departments. 'A positive attitude toward physically disabled persons is related to type of experience and previous contact with individuals who were disabled. The greater variety of experience and frequency of contact, the less likely a person would express a negative attitude' (Stovall 1983:325). One troublesome and demanding student should not decide a department to refuse other blind students.

It can be argued that Rowland was an exceptinal student, few other blind could have done what he did. It can also be argued that Professor Maurice Aldridge, blind and head of the department of Linguistics at Wits is an exception: he holds MA and MLitt degrees from Oxford, a doctorate from Rhodes; his first degree was in comparative literature of six modern languages, his MLitt in medieval philosophy, his PhD in the development of quantifying structures in linguistics. He used braille for most of his studies; since the 1970s the bulk of his research is done with an Optacon, a direct translation device that converts an optical image of a printed character to a vibrating tactile facsimile.

The brilliant have always excelled, even in an academic or research setting (Dalrymple 1975:2; Owens et al. 1979); the bright always did cope very well, but new technology has brought academic study of even 'difficult' subjects within reach of the more average blind student.

Reading machines provide access to standard information in print; computer systems with voice output or braille terminals give access to electronic information; a photocopy machine can reproduce tactile photocopies of diagrams and graphs; scientific calculators have voice or braille output; a general purpose talking laboratory instrument can be interfaced to almost any scientific instrument; and even tape recorders have progressed to beep-indexing and intelligible compressed speech of up to 400 words a minute, approximating normal sight-reading rates.

Reading machines are the most obvious solution to the information barrier which faces blind students.

The Optacon, already mentioned, is a direct reading device. Schoolchildren in South Africa are trained in its use and up till now two Unisa students have used it to read their study guides, one to read Spanish Special, the other Computer Science, Statistics and Mathematics. It is a slow system, every character is spelled out and it requires high motivation and good sensitivity in the fingers. The two students did very well.

The Kurzweil reading machine converts print to synthetic speech through computer systems which perform optical character recognition and text-to-speech conversion. This machine automatically scans the printed page, reads several hundred different styles (fonts) and most letter sizes, and is widely used in libraries, schools and universities in America and in other parts of the English-speaking world. It is expensive (US$32 000) and there is not one in South Africa.

There are various other reading machines, differing in effectiveness, size, scope and price. The most promising is the DELTA, developed in France; prototypes for assessment were sent out in 1986 and it will hopefully become available soon. It is a portable text reader that can read printed text in English, French, Spanish or other Latin alphabet languages; it is very fast, has braille output and can be interfaced with a computer or voice synthesizer. The projected price is R14 000 (Badoux 1985:21). It has far-reaching implications for the blind, facilitating study and professional employment.

Microcomputers with either a braille terminal or voice output[1] provide interesting options to Unisa students. If a study guide could be made available on diskette, it offers immediate accessibility with added wordprocessing benefits like search facilities, obviating the often frustrating search on tape for a certain section or example. With a Beltel modem added the Unisa library facilities become available, offering the blind student independent access to source material. A blind Master's student is currently researching overseas database accessibility for the sight-impaired in South Africa. He is also investigating the provision of books in an electronic form to blind people. This brings postgraduate research independent of sighted readers within reach of blind students.

For the blind undergraduate study guides in braille might prove the best teletuition method yet. Production of study material is fully computerised at Unisa. With a Beltel modem link study guides can be sent electronically to Braille Services in Johannesburg where it can be converted and printed in braille by a program developed by a researcher at Unisa (Geldenhuys 1982). It has to be monitored before printing but there are obvious advantages:

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[1] Research is underway to develop an Afrikaans voice synthesizer.

* 'It has been the experience of many educators that knowledge acquired through the aural sense is less retentive than that gained (by sight or touch) through the printed page' (Eldridge 1979:10). For certain courses braille is unquestionably a better tuition method than tapes, e.g. the economic and management sciences.

* The production of braille study material is state-subsidised. The student would pay for materials used; it would not amount to more than R15,00 for a complete first-year course, far less than taping costs for the same course.

* Though braille material is bulky, there are no mailing costs involved in sending literature for the blind.

* Taping of Unisa study guides is time-consuming and often requires expert or specialised knowledge, e.g. African and Romance languages. Computerised brailling would not only release overburdened lecturers from an added workload, it would benefit students. Studying Latin, for example, is far easier if the text can be read instead of listened to.

Such a computerised brailling system of study guides would have to be well organised to co-ordinate with Unisa's academic year, but it has so many advantages for Unisa as well as blind students that it definitely bears further investigation.

Modern technology has made it possible for the blind to cope with almost any subject. They should be allowed to register, but they must also be allowed to bear the responsibility of their decisions (Report on Ethics and Disability 1986:35), whether it lies in the provision of readers and equipment, or leads to failure or success.

The deaf student

The problems of the deaf student at Unisa have not been fully realised. Deafness is an invisible impairment, albeit a very far-reaching one. For the postlingual deaf Unisa does offer the obvious answer to tertiary education and the hard of hearing may have an adequate vocabulary for Unisa courses. For the prelingual deaf it is an altogether different matter. To think, to speak, to read, and to interact with other humans all require a language base. For the prelingual profoundly deaf normal language acquisition is almost impossible, leaving them without the necessary vocabulary and language skills to cope with university study.

Father Cyril Axelrod, recipient of an Excelsior Award, was the first deaf person in the world to be appointed as a catholic priest. He served for many years on the executive committee of the SA National Council for the Deaf and was chairman of several sub-committees of the council. In a letter to Unisa he explained '...the born deaf suffers a great deal from the lack of language feedback as the result of auditory loss. I always make all effort to comprehend the elementary Psychology, though whatever I put forward through means of verbal communication or language is a real barrier to me' (Axelrod 1973). In asking for readmission to Psychology he pleads for understanding '(I hope) that you will understand my great difficulty, in producing the scientific and accurate presentation in words to the elementary Psychology'. He is a man struggling with the subtle but pervasive influence of his impairment and his lecturer and examiner will not even realise his predicament.

In the USA interpreters are provided and deaf students obtain degrees up to doctoral level in all fields. In England the Open University provides special support for students with hearing problems: 'Undoubtedly there is a demand for this form of higher education for the hearing impaired, and the students, given intensive support, appear to perform at least as well as the average hearing student, as measured by their continuous assessment grades' (Coe 1974:22).

Unisa do have prelingual deaf graduates (two in 1986) but they are the exception. Counsellors at school advise pupils not to enroll and if they do, they mostly fight a losing battle. Yet they try and they can be found on the committees for the deaf all over the country; they are the people who help others with similar impairments.

There is no structured provision for supportive university education for the deaf in South Africa. It is recommended in the Report of the Subcommittee on the hearing-impaired (1986:33): '..the hearing-impaired must receive special support in tertiary education. This special support includes both academic and technical directions in special classes and/or sections for the hearing-impaired where knowledge is transmitted with aids and by lecturers who know the orthodidactics of teaching the hearing-impaired. Special attention will have to be paid to adjustments in examination and certification'.

The following considerations highlight the need for investigation and research at Unisa:

* Sending a student to Gallaudet, a university for the deaf in the USA, costs between R25 000 to R30 000 a year. In the past the exchange rate was more favourable and the National Readjustment Committee and Vocational Board, Department of Manpower, did send meritorious students to Gallaudet to obtain a university education. Other deaf students were privately funded. At the end of 1986 a student was refused by Gallaudet on the grounds that as a white South African he might not be accepted by the other students because of the prevailing anti-South African feeling.

* A teacher with 25 years experience in teaching the deaf, who interpreted for students at Wits and privately tutored Unisa students, has been firmly convinced by her trial experience that the teletuition method is more suitable for deaf students.

* The Open University had considerable success in the tuition of deaf students. At their London Study Centre 'Tutorial services are offered for hearing-impaired students ... who need extra help with the language and subjects of their course' (Panckhurst 1980:109). Tutoring is done by experienced teachers from schools for the hearing-impaired. Such study groups combined with link or bridging courses (Bradley 1982:9-12) offered by the schools and based on career-oriented tutorial material seem to meet some of the recommendations of the above-mentioned Report (1986 op cit.)

- Whereas individual interpreters and notetakers are provided by more than half the universities in the USA, Unisa could research and investigate the possibility of substituting interpreters by a video, explaining the basic concepts of a course with 'total communication', in ordinary and sign language. It can be replayed and stopped and could provide individual tuition.

- In future, special computer-aided instruction courses could be of great benefit to deaf students.

- Deaf students have definite course preferences, e.g. Accounting and Auditing. With the co-operation of interpreters special support in just one field of career-oriented study might make a real contribution to career opportunities for the deaf in South Africa.

The National Education Act, Act No. 76 of 1984 affirms the right of equal education for all South Africans. In his address at the closing of the academic year in November 1986 Professor Van Wijk stated 'Equality of opportunity is a basic human right, including equality of educational opportunity. University education must be available to all who qualify for it and are able to benefit by it ... If we accept that universities are called upon to train the best minds, the future leaders in their professions and communities, they cannot compromise on standards of admission or of tuition' (Van Wijk 1986b:9).

This principle is confirmed by extending these rights to disabled students.

ADDENDUM A

PHYSICALLY DISABLED STUDENTS ACCORDING TO UNISA CATEGORIES

	Blind	Cerebral palsied	Deaf	Other	Total
1980	21	29	12	231	293
1981	23	38	18	215	294
1982	35	26	11	189	261
1983	35	16	27	352	430
1984	20	17	22	429	488
1985	39	21	39	503	602
1986	41	20	34	538	633

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CAREER GUIDANCE FOR DISTANCE STUDENTS

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In this paper the term "guidance" will be used in preference to "counselling". Counselling presupposes the involvement of a counsellor which in the distance context is highly unlikely, although it can not be ruled out altogether. Guidance, as defined by Katz and Shatkin (1983), indicates a process whereby an individual learns about himself and the options or alternatives he has in relation to his self-knowledge. It is a form of education which traditionally has been directed by an expert but which increasingly is seen as an area suitable for other forms of intervention. Furthermore, in using the term "career guidance", educational guidance is subsumed. This is in keeping with the assumption by Harris-Bowlsbey (1983) that educational decisions are a function of career decisions.

Career guidance seems to be of particular concern to students at Unisa. An examination of the contents of letters received by the Student Services Bureau, prior to the registration period of 1984 and 1986 respectively, revealed the trends reported in Table 1.

Table 1

Trends in the requests for assistance: 1984 and 1986

Type of assistance requested	1984		1985	
	N	%	N	%
Choosing courses	236	43,1	277	41,7
Decisionmaking	89	16,3	139	20,9
Study methods	82	15,0	118	17,8
Emotional problems	1	0,2	4	0,6
Examination skills	22	4,0	4	0,6
Reading skills	5	0,9	3	0,5
General administrative procedures	119	20,5	119	17,9

The data in Table 1 indicate that about 80% of the requests for assistance deal with matters of an academic and career related nature. The largest individual category of requests (41,7%) deal with course and subject choices which also imply an uncertainty about how academic training will link up with the personal characteristics of the student and with actual career requirements. A similar trend as indicated in Table 1 has been found at other South African universities (Cloete & Le Roux, 1978; Van Schoor & Whittaker, 1986) and abroad (Carney & Barak, 1976; Carney & Savitz, 1980; Carney, Savitz & Weiskott, 1979; Johnson, 1977).

The data in Table 1 is further supported by the writers' personal experience in counselling students at Unisa. It seems that many students who enrol at the said institution did not perform sufficiently well at school to gain entry to other tertiary training institutions. After a number of years in the job market, these individuals find that they are unable to advance without higher academic qualifications. Others, due to more stabilizing influences in their lives, find that they would like to determine their true academic potential through further study. An increasing number of students are unable to find employment and partly because of the assumption that better qualifications will ensure them a job and partly because they have nothing else to do, they enrol at the University. Whatever the reasons are that these students use for studying, it seems that they did not receive, or were not interested in career guidance at or after school. The result is that they make haphazard choices, based on information from unprofessional sources such as family, friends and others.

It is clear that a need exists for structured career guidance. A question arises about how the need is presently met or what attempts are being made to meet it. Written and telephonic requests for assistance, directed to the Students Services Bureau, are responded to in writing or by telephone. Both these modes of assistance are often inadequate and unsatisfactory due to the complexity of the career decision-making process.

A main concern of the student counsellor is his uncertainty about the quality of the students' foregoing career exploration and decision-making process. Is the confusion expressed in a letter a fairly minor occurrence in an otherwise well-structured process or was the career exploration and decision-making process patchy or even non-existent and therefore the specific request is only the tip of the problematic ice-berg? With the distance-student who is unavailable for a one to one discussion, it seems necessary to assume the worst, and that help in the form of a well-structured career guidance procedure should at least be offered.

A further concern of the student counsellor is the extent to which a student's questions are adequately answered. Is he better informed than he was before? Responding to a student's questions by letter or telephone is cumbersome and limiting, especially when the request deals with an important exploratory and decision-making process involving a large number of variables and permutations.

From the previous discussion it seems that attention should be paid to the particular career guidance needs of the distance student. With this aim in mind the following section will deal with recent developments in counsellor-free career guidance.

1. Counsellor-free Career Guidance

Career guidance has traditionally been a dyadic relationship between a counsellor and a counselee. Recently two other modes of career guidance were developed which show particular promise for the distance student. These are computer-assisted and paper-based modes of career guidance. Developments in both areas will be discussed briefly.

1.1 Computer-assisted Career Guidance (CACG)

Computers were introduced to career guidance more than two decades ago. Originally it has focused mainly on information-storage and retrieval, two functions for which the computer seems to be particularly suitable. With the improvement in technology, the career guidance programs have also become more sophisticated and especially in the US it has led to a proliferation of systems. Shatkin (1980) provides a complete description of 19 systems in operation at the time.

Cairo (1983) has reviewed a number of studies conducted to evaluate the effectiveness of the CACG-systems in operation. After evaluating 15 studies the writer concluded that -

1. computer-assisted counselling and guidance systems promote a greater awareness of the need for planning, increase concern with vocational choice and facilitate user's ability to relate information about themselves to potential occupations;

2. users learn more about career exploration resources, including those from which they can learn about educational opportunities, about occupations and about themselves;

3. users acquire relevant information about educational and occupational alternatives;

4. the number of occupational alternatives is generally increased;

5. users sometimes increase the appropriateness of their occupational preferences, making them more congruent with personal attributes;

6. most counsellors do not report feeling threatened but view systems as welcome additions to the range of career guidance systems; and

7. users report that systems are understandable, helpful in facilitating career development and enjoyable to use.

Cairo (1983) however cautions against a too optimistic view of the value of CACG as some of the recommendations are based on only one or two studies. More research is obviously needed but it seems that CACG holds promise as a cost- and labour-effective mode of intervention, particularly for distance students.

CACG was introduced in South Africa by the Human Sciences Research Council (HSRC) after an extensive investigation of available US systems. The Discover-system was selected as the most suitable and comprehensive one. It offers separate versions for high school pupils and adults. The adaptation of the system for South African conditions was started in 1981 in the form of a research project by the HSRC (Von Molendorf, 1983).

The Discover-system in its adapted form, consists of eight modules of which the first three each have two parts. The topics that are dealt with are: Module 1A - Understanding my values; Module 1B - A value game; Module 2A - Training in decision-making; Module 2B - Exercises in career decision-making; Module 3A - Training in the grouping of careers; Module 3B - Career exploration; Module 4 - Judging interests and abilities; Module 5 - Compiling a career list; Module 6 - Gathering career information; Module 7 - Exploration of career opportunites. Both the high school and the student versions cover the same topics (Von Molendorf, 1986).

At the end of 1986 the experimental evaluation of the Discover-system was concluded. The data are not yet available but a personal communication with the project leader (Roelofse, 1987), has indicated that the results are commensurate with that of studies abroad. It seems that the contents and outcomes of the procedure were generally positively regarded. Users of the system reported positive development in self- and career knowledge. Negative feedback was only received with regard to technical problems experienced with the system. In the improved version the light sensitive pen, which did not always function properly, will be replaced by a menu-keybord combination. The problems experienced with unexptected shut-downs of the mainframe computer will be dealt with by the use of free-standing micro-computers. Some users complained about the length of the program, which, if done in its entirety, could take up to 22 hours to complete. It is however possible to enter the system at any stage and it depends on the needs of the user and the expertise of the supervisor how beneficial the exercise would be. One major problem with the CACG-system has always been the dependance on sophisticated technology. The adaptation of the system to micro-computers will go a long way towards solving the problem but until computers become a more common commodity, it will still discriminate against the guidance-seeker without access to a machine.

1.2 Paper-based Career Guidance (PBCG)

PBCG procedures were developed in the US and two versions which are widely used are the Self Directed Search (SDS) by John Holland (1970) and the Career Decision-making System (CDS) by Thomas Harrington and Arthur O'Shea (1976).

The SDS consists of a number of self-evaluation exercises used to determine a user's dominant work values, abilities and interests. It results in the compilation of a Summary Code. The Summary Code is a three-digit code which is linked to a number of occupations, typical of people with similar interests, values and abilities. The list of occupations is contained in a separate booklet, titled Occupations Finder.

The SDS is well-structured and easy to use in any location. It also provides useful guidelines on how to obtain more information about specific occupational possibilities. Zytowski and Borgen (1983) notes that the SDS effects are equal to those attained by counsellors. The writers speculate that in the traditional dyadic counselling relationship the counsellor can provide human interaction which the client values, but he can not present 500 occupations complete with references. This advantage of the SDS over personal counselling is apparently mainly responsible for the experience of an increase in the number of vocational options a person is considering, an increase in satisfaction with a vocational aspiration and an increase in selfunderstanding. The SDS clearly seems to be a most useful career guidance instrument.

The Career Decision-making System (CDS) consists of two parts, a Summary Profile and an Interpretative Folder. The system is based on the Holland theory of personality and related occupational environments. The CDS provides for a systematic exploration of a users own previous occupational ideas and his evaluation of his strong academic subjects, the educational level he would prefer to enter, career values, selfestimates of abilities and interests. All the information is combined in a well layed out folder, providing additional information on the educational levels required for specific occupations, occupational outlook in terms of projected 10 year employment figures and codes for easy reference to the Dictionary of Occupational Titles. The Interpretative folder furthermore provides valuable hints on the career-exploration process which should be particularly useful for school-level users.

The advantages of the CDS are similar to what has been found with the SDS, although it seems as if the former is more comprehensive in its coverage of variables important in the career decision-making process, e.g. strong academic subjects and future educational plans. The CDS in addition provides more useful guidelines on practical aspects of the world of work, e.g. occupational outlook and educational levels for each stated occupation. These variables are important in career planning.

In comparing the advantages and disadvantages of the computer-assisted and the paper-based career guidance systems from the perspective of the distance student, it appears that the computer-assisted system in spite of its many advantages will be unavailable to a large proportion of Unisa students due to its dependence on sophisticated technology. The paper-based system, in spite of its limitations in terms of scope and interactive ability, will be more accessable to all the potential users. It was this crucial factor which led to the decision to develop a paper-based career guidance system geared towards the South African situation in general and the Unisa student in particular. In the following section the layout and contents of the instrument will be discussed briefly.

2. The Self-directed Career Guidance System (SCGS)

Work is currently underway to design a paper-based career guidance system which will consist of three sections. In Section I the student will provide biographical data pertaining to variables important in the career decision-making process. These variables will include subjects taken at school, performance level, study motivation and approach, broad occupational groups and educational goals. Section II will contain three exercises to determine the variables deemed to be important in making a career choice, i.e. occupational values, abilities and interests. Interests will be measured in accordance with the CDS typology of Crafts, Scientific, Arts, Social, Business and Clerical. In Section III the information gathered in the previous two sections will be fused with additional information on specific careers, educational requirements, subject choices, occupational outlook and references to a widely available career-information resource published by the Department of Manpower.

It is envisaged that the SCGS will greatly aid prospective students and entrants to the job market in systematically evaluating themselves and the world of work. A student can refer to the results of the survey from time to time to determine the pace and direction of his career development. The results can also be discussed with a career counsellor who would then have a comprehensive picture of the counselee to refer to. A paper-based, self-directed career guidance instrument will also fit in perfectly with the ethos of Unisa and will create another way in which the Student Services Bureau can assist the student in finding his way through the often confusing university system.

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THE PROMISE AND PROBLEMS OF LEARNING AT A DISTANCE

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The Promise of Distance Learning

Education and Society

If a society is to survive it must meet its own needs and the demands of its social and physical environments. If it is to maintain itself, it must ensure that it has a continuing supply of members who can fill the roles of its various institutions; it must also ensure that those who fill the roles share the culture that gives the society its distinctive character.

Socialization is one of the fundamentally important processes by which a society attempts to ensure its survival and continuation. It is through socialization that a society's culture is learned and internalized by its members, and they are fitted to perform their various social roles within it. The formal educational system is one of society's important socializing agents.

In modern societies, the complexity of industrial and social organization requires a level of training and understanding from the individual as never before if he is to meet the demands of his society and play his part effectively in its functioning. The higher education of all members capable of it has become a necessity rather than a privilege in the survival and continuation strategies of most modern societies. (Beals & Hoijer, 1965; Bredemeier & Stephenson, 1962; Brubacher, 1965; Cronbach, 1963; Herskovits, 1948; Johnson, 1960; Linton, 1947.)

The Needs of the Individual

Throughout the industrialized world the demand for higher education is considerable. But any conception of the extent of that demand is severely limited if it includes only the demand for full-time university study. For, large as that demand is, it is smaller by far than the demand of adults from all walks of life for education beyond the secondary level. True, many adults want further education simply for the sake of self-improvement, with no formal qualification in view. But many more do require further, or new, qualifications. It is also true that promotion often depends upon the passing of professional examinations. And higher degrees or diplomas are frequently keys to the doors of more desirable occupations. Keeping abreast of new developments is vital for many to survive in their fields. And preparing for other fields is necessary for some when new technology renders old skills and understandings obsolete or redundant. (Brubacher, 1965; Glatter & Wedell, 1971; Madgwick, 1963; Tunstall, 1974; Wedemeyer & Childs, 1961.)

This demand for education is felt as strongly in Africa as in the rest of the world and, since the traditional modes of education are inadequate to meet the demand, the call for extraordinary means to meet the need is as great here as it is elsewhere. American society, perhaps more than any other society today, epitomises the society of the ordinary citizen. That society was founded upon a firm belief in the individual and his inalienable rights (Philbrick, 1951), and upon the conviction that the development of society depended upon the development of the individual.

Meeting the needs of the ordinary citizen, to fit him for participation in the fast developing modern society and to refit him for continuing participation in it as its development makes earlier learning and training obsolete, has far outstripped the capabilities of the traditional educational institution, and other institutions and methods have had to be devised and developed.

The Role of Distance Education

The answer to the enormous demand for extra-mural higher education was found in the correspondence system of teaching. This, from its conception in Germany in 1856 and its initial development at England's Cambridge University in about 1872, became an accepted part of American educational method where the "University of Chicago has been teaching by correspondence since it opened in 1892" (Bittner & Mallory, 1933, p. v). Teletuition, or distance education, now plays a vital role in the educational systems of major countries throughout the world, including Holland, France, West Germany, Sweden, Spain, South Africa, Australia, many communist countries, and various Latin American countries.

The reasons for the success of this method of study are many. Not least among them are its flexibility, adaptability, and effectiveness. It offers the possibility of bringing education to very many more than could otherwise receive it. It does not suffer from time or space limitations, which are matters of crucial concern where distances are considerable and other geographical features isolate people, or where peoples' lifestyles allow them to study only when others sleep. Distance learning can also satisfy the interests and the learning needs of a wide variety of students. In view of all this, distance teaching is an important solution to the problem of education for both the individual and society, increasing as it does the level of participation of the members of society by enabling more of them to develop and use their talents more fully and effectively than they otherwise might.

Problems of Learning at a Distance

Who Can Be Educated?

If education is to serve its purpose, those who want it must be able to benefit from it. But selecting those who are able is not a simple matter. The first-year failure rate at both traditional and distance teaching universities indicates that obtaining a university-entrance pass at school is no guarantee of success in those institutions. Selection difficulties are compounded further by the phenomenon of the average performer at school who develops into the outstanding university graduate, and the collector of matriculation distinctions who joins the ranks of the academic drop-outs.

Alterable Deficits

Since factors other than those revealed by performance at school play a role in determining who can be educated, it is clearly possible that some people who appear to be unsuitable candidates, appear so only because of alterable deficits that obscure their true potential. These factors are deficits and obscure the person's potential because of the long schooling all have received in the implicit curriculum of judging who they are in relation to their group instead of in relation to an absolute norm of adequate learning. As Bloom (1971) expresses it, the pupil, "no matter how well he does, if others do better, he must come to know it and to place himself accordingly. No matter how poorly he does, if others do less well, he also comes to know it . . . because the schools have for so long stressed competition as a primary motivational technique. Only rarely are the judgments in school based on some criterion of adequate work or learning independent of relative performance among the students" (p. 17).

Isolation in Distance Education

These other than intellectual deficits are a problem, not only to the university, but also to the individuals themselves. Selection is obviously not a solution. This is particularly so at a distance teaching university, where conditional exemption from the matriculation examination will admit a student. But simple admission to studies is not a solution either. Being thrown in at the deep end may be a way of learning to swim, but only if there is a life-saver present. It is not the way of learning to cope with such complex activities as tertiary study in a situation where the ratio of students to lecturers is enormous, and the written word is the usual means of communication. For any student, the absence of ready help can be very disheartening, and the delay in response to written appeals for help invites giving up even the attempt to study. For students whose perception of their ability to learn has been adversely affected by their experience at school, the situation in distance education is a disaster. Now they are without a teacher to tell them how they are doing, and have no readily available peers with whom to compare themselves. They are on their own, with no-one to help.

Some Need Help Learning How to Cope

Many students do learn to cope, of course. With discipline and dedication, they discover how to manage learning at a distance. They learn to rely on their own judgment of the quality of their academic work. They learn, too, what their lecturers want and what standard is expected of them. But some students, who also try hard at their studies, don't make it. Some fail everything at the end of the first year. Others scrape through one or two of their papers. None of these has learnt how to cope with learning at a distance. They have gained no confidence in their own judgment, and cannot discover what the standard is that is expected of them.

Not More of the Same Thing

These students are not helped at all by being given a last chance to prove themselves by passing this or that group of papers. Nor are those helped who, although they have done a little better, are allowed to struggle on, failing papers once or twice before scraping through as they have done previously. More of the same thing is not helpful to these students. Something different is needed. What is needed is something that can help them discover their own capabilities and their capacity for coping with the peculiarities of distance education.

Some Solutions to the Problems of Distance Education

Practical Encouragement is Basic

Simply giving some students more of what they have had before to get them to prove their worth is futile, and frustrating to them. More helpful is an approach that offers them encouragement in their desire to succeed. Such encouragement flows, not from mere talk, not even encouraging talk, but from the provision of experiences of successful study.

General Encouragement of Students

Since students vary in the amount of help they need to get started in coping with distance learning, and since most students who enter this form of study would manage more easily if the distance they perceived between themselves and the university were lessened, anything done to achieve this would reduce the numbers of students requiring individual help, while at the same time easing the lot of those who, with much effort, would eventually manage on their own. There are various ways in which this is being done in tertiary institutions overseas.

At considerable cost, one institution, which has both on-campus and off-campus students, has achieved this lessening of the perceived distance between off-campus student and university through a system of effective coordination of its administrative and academic functions. The lecturers are involved in both on-campus and off-campus teaching. The system is effective and thrives because the Director and the Deans of the various Faculties were equally convinced of the value of distance education and its proper functioning. To this end they co-operated in the establishment of a unit dedicated to the purpose. The unit functions to initiate and maintain contact with all students. It also ensures that all questions, both administrative and academic, are answered within 24 hours. In addition, as an aid to prospective students to help them assess their likely satisfaction with distance learning, a sample package containing materials designed to provide a genuine experience of the demands that distance learning makes upon students is offered for sale. As might be expected, this particular institution has no need of a separate support system. The contact between institution and student is close and as personal as a friend on the phone.

Another institution, also with both on-campus and off-campus students, has contrived an effective support scheme for its distance learners through the contacts its on-campus student counselling service has with counsellors in other institutions in the cities and towns within the boundaries of its wide-spread area of operation. In addition, it has a system of Regional Advisers able to direct students with difficulties to resource people near them who are specialists in various disciplines. For a relatively modest cost, this arrangement takes care of both the personal and academic problems students might experience. The telephone service manned by the staff of the external studies unit provides personal contact at the university throughout office hours, and contact by answering-machine throughout the remaining hours. The Regional Advisers are former students of the institution, glad to offer the service for a year or so. A small honorarium takes care of the small costs involved. The external studies unit sees its role as one of facilitating and improving the quality of the interaction between student and university.

Specific Encouragement of Students

The student support mentioned so far has been of a general nature, and is offered to off-campus students to help them feel less isolated and more a part of the institution with which they have enrolled. Other encouragement, related to more specific difficulties associated with learning at a distance, is also offered to students. The first example, although it deals with a procedure developed for on-campus students, concerns an important aspect of all tertiary learning, including learning at a distance.

An institution catering mainly for on-campus students offers a service to prospective adult learners that seems appropriate not only for them but also for distance learners. These prospective adult students hope to register for a degree, through a mature-age concession, if they consider themselves able to cope with tertiary level study. To enable them to make up their minds, the institution provides a course of lectures aimed at helping them learn how to produce acceptable tertiary-level essays. The course also includes other lectures on a number of topics. These provide the raw material from which to write an acceptable essay. Students enrol for these lectures according to their interests and, towards the end of the course, they produce an essay on a topic of their choice. The essay is then evaluated, and the tutor's comments provide the feedback they need for coming to a decision. The course is not simply a number of talks about how to write an essay. It is much more than that. It is an experience during which students discover how knowledge may be constructed and effectively conveyed to others.

Such training in a useful, fundamental academic skill is the solution that many students need who experience excessive difficulty in coping with distance learning. But specific training of the sort just described should obviously not be confused with the multitude of study-habits and study-skills programmes that have been developed, the value of which, as they stand, is in serious doubt (Davis & Annis, 1982; Groveman, Richards, & Caple, 1977; Laycock & Russell, 1941; Pauk, 1973). The encouragement students need is of the sort that enables them to learn how to do what they have so far been unable to do. General programmes that treat problems superficially or whose application to specific study topics has to be worked out by the student are an added burden and not an encouragement. To quote Pauk (1973, p. 240), these potted programmes of study-skills "confuse rather than enthuse our students".

Among examples of other attempts to give real encouragement to certain students are the Use of English course offered at an African university for those taking a course at tertiary level, and the first-year History course guide of the external division of an overseas university. In both courses, the study-material on the particular topic has aids to learning built into it. Some of the aids are of the potted variety, but those that are have been taken out of their pots and applied to the topic in hand so that the student can use them effectively and intelligently. This enables the student to approach the material with confidence and to master it efficiently. At no time are students left in doubt about what is expected of them, or about how they can meet the requirements. Their involvement in the course engages them in learning how to go about building their knowledge of the topic, and how to communicate this understanding effectively to others.

In the light of the experience I have had with similar attempts to help students, the immediate outcome that can be expected is growth, both in the student's skill, and in his or her sense of self-confidence. The long-term result is even more pleasing. Let me illustrate.

It is well-known that many students enrolled for degrees in the social sciences (including economics, education, geography, nursing, psychology, and sociology) have difficulty with the introductory statistics part of their curricula (Feinberg & Halperin, 1978; Thompson & Smith, 1982). It comes as a shock to them, with their background, to have to deal with a mathematical topic. The anxiety is so severe for some as to cause dropping out or a change of study goals and even career goals (Feinberg & Halperin, 1978). To help such students, I devised a programme in the form of a clinic which, rather than focussing upon their fears, engaged students in developing their skills in statistics. The essence of these clinics is the learning climate that is set up in them. It must be one that students find congenial and encouraging. Details of the programme have been described elsewhere (Crawford-Nutt, in press).

These stats clinics have been run for several years now, and always with the same pleasing results. Students who come into a clinic, many of them beside themselves with anxiety about statistics, leave with their self-confidence enhanced. Their experience of managing themselves and the topic is largely responsible for the change. In the clinic they have discovered that they can deal with something that previously has daunted them completely. As can be readily appreciated, the encouragement that this gives them is considerable. It is so strong that some students find that it flows over into their other studies and into the examination room as well. They feel confident and in control of themselves to an extent they have not known before. Considering that these are the same students who were ready to give up even before they started, they have changed remarkably. A little encouragement has helped them go a long way.

Encouragement of any kind is of more use to all students than discouragement or indifference. But encouragement that is focussed, so that it builds confidence where it is needed, is most useful. While it is true that distance learning comes hard to some students, it seems clear that, with appropriate encouragement, its difficulties can be overcome.

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CLOSE ENCOUNTERS OF THE THIRD KIND :
THE PERSONAL TUTOR SCHEME IN PRACTICAL ENGLISH

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RATIONALE

One notion much cherished by science fiction writers writing about future societies is the concept of 'instant knowledge'. Merely by ingestion of the appropriate capsules, or instant alignment of one's synapses by some didactic modification of elctro-convulsive therapy, one would miraculously acquire knowledge of French or of ability to perform statistical manipulations overnight. Would that it were so, for then Unisa could dispense its courses in pillboxes, and lecturers could enjoy planned obsolescence. But - apart from the current unavailability of the requisite technology - the concept of instant knowledge lacks viability because it rests on the erroneous assumption that teaching is merely the transmission of information from one (full) vessel to another (rather less full) one. Obviously - although seductive in its simplicity - this notion ignores the complex reality of the learning process and of the didactic relationship.

Ideally, learning involves active, personal interaction with and integration of a body of knowledge. With the tutor as facilitator - midwife-alchemist, the student undergoes a process of neurological change - not merely absorption of data, but actual metamorphosis as the knowledge and skills become a part of her being. The process of change is comparably as significant and momentous as the change that is the aim of psychotherapy. Growth and change are most successful within the context of a relationship, and educational growth - or learning - is not that different. Relationships also promote motivation - the fuel of the learning process - and help relieve stress - the inevitable by-product of learning. Thus, the didactic relationship is as important a constituent of our educational package as is the material we offer.

In distance education, the didactic relationship between student, tutor and material is contained within and carried by the medium of text. Given that two of the elements in this triad are human beings, the impersonal nature of the medium of the relationship is a handicap so inhibiting as to amount almost to a deformity of the ideal process of learning. But - as Unisans always cry out in despair - we have no other option. For thousands upon thousands of students, distance education is the only means of education, and thus cannot be summarily aborted, despite its defects.

Within this limited - even deformed - context then, we have to attempt to energize the didactic relationship with some form of didactic intimacy, some personalization of the approach that will both recognize and activate the individual potential involved. This is particularly crucial in language teaching, as the affective element has been identified as one of the most important factors in the process of language acquisition. One of the primary aims of a language teacher has been pinpointed as the need to create an 'affectively positive and supportive classroom,...one in which students are encouraged to initiate and sustain real communication and to take risks in using the new language in that communication'.[1] However, the importance of personalizing the learning process is not confined to language teaching.

In his Opening Address to the University of South Africa in February 1083, Theo van Wijk emphasised that 'students are infinitely variable, and each brings his own particular frame of reference.... Beyond the package of materials, there is a need for individual advice, support, interpretation and mediation capable of meeting the diverse needs of students....'[2]

With the preceding argument as rationale, the Practical English team began - in 1983 - to explore the possibility of instituting a Personal Tutor Scheme, and in 1984, this scheme was implemented for the first time.

PERSONAL TUTOR SCHEME : OBJECTIVES

The Personal Tutor Scheme in Practical English had three main objectives.

1. Firstly, we wanted to personalize the experience of studying Practical English. This was partly in response to exposure to Second Language Acquisition theories which indicated the importance of affective factors, and the necessity of lowering the affective filter for input to reach the Executive Monitor in the brain.[3]

   Simultaneously, awareness was growing about the loneliness of the long distance student; and the fact that 70% of students attending lectures rated personal contact with tutors as a major benefit of the group visits indicated a need for personal contact.

2. Secondly, we aimed at streamlining the process of dealing with student correspondence, telephone calls, and interviews. Formerly, this was handled on a somewhat haphazard basis, with lecturers often frantically scurrying off to slam their office doors or pleading other commitments at the sight of a forlorn student in the corridor, or the secretary trying to put through an importunate telephone call.

   Implied in this objective is the need to instil a sense of personal responsibility in tutors for their students - a rather sad commentary on our approach to our didactic task. (Who was it that said 'Teaching would be wonderful if it weren't for the students'?)

3. Our third objective was to encourage students to work more consistently and submit assignments more regularly. Our hope was that regular reminders sent throughout the year would prod students into working harder at the course and thus give them a better chance of passing.

PERSONAL TUTOR SCHEME : STRATEGY

The students were divided up equally among the tutors, between 300 and 450 being assigned to each. The University computer printed out address labels for us, and a standard introductory letter was compiled, with a space for the student's name. (See Appendix A)

The tutor then has to affix the address label to the envelope, fill in the student's name in the blank space, sign her own name at the end of the letter, and stamp it with a rubber stamp bearing her name and her telephone extension number. The letter is then folded and inserted in the envelope and sent to the University's Despatch Section, where it is sealed and mailed. This year we have included a pamphlet introducing the tutors as faces and personalities. (See Appendix B)

Phase two of the scheme involves sending out a second letter approximately half way through the year, reminding students of the Due Performance deadline for admission to the examination. (See Appendix C)

At one stage, as many as four letters were sent out during the year, two of them to students indicated by the computer as falling into a 'high risk' group as far as non-submission of assignments was concerned.

The processing of some 800 form letters per tutor thus constitutes the primary framework of the personal tutor scheme. Queries from students, letters, telephone calls and requests for interviews are channelled via the secretary to the student's personal tutor.

THE PERSONAL TUTOR SCHEME : FEEDBACK

Undoubtedly, our first objective was achieved. Students responded well to the approach and many telephoned or wrote in response to the first letter just to introduce themselves and say thank you for the contact. One student telephoned his personal tutor from Cape Town and - with choked tears in his voice - expressed how touched and moved he was by the gesture. He had always thought - he said - that to be a distance education student meant inevitable suffering and loneliness. No one had ever given him the impression that he did not need to suffer in silence, that he could share his problems as a student and have them understood and - possibly - alleviated.

At group visits and lectures, students would often seem to feel a sense of proprietary pride when 'their' tutor was lecturing, and would come up and introduce themselves in the breaks. Students wrote regularly, often with queries about English in general, or with requests for more specific explanations about points of grammar, or interpretations of the assigned texts. A blind student developed a close didactic relationship with his personal tutor when his tape-aid service let him down. In response to his plea, his personal tutor taped many of his English set texts for him, and arranged that commentary on his assignments be made on tape.

Tutors were sent Christmas cards by their personal students, and often received post-examination visits or phonecalls from students expressing gratitude at the support offered during the year. One student spent almost R100,00 on French perfume for his tutor while on visit overseas, leaving it on her desk with an anonymous note after the examinations. Two tutors with Chinese students were invited to their homes for Chinese meals. Boxes of chocolates were also not uncommon.

Aside from the benefits to the tutors, the overriding advantage of this scheme was the humane environment created. The letters, telephone calls, visits and gifts all indicate that we have succeeded in creating an impression of ourselves as caring and approachable people, interested in and committed to helping our students.

Achievement of the second objective was not quite as obvious. Administration was streamlined in the sense that letters, telephone calls and interviews were automatically channelled to the person responsible, and thus rapidly and efficiently dealt with. However, the proliferation of mindless paperwork (those 800 form letters) arouses considerable irritation on the part of the tutors. This remains a basic problem with the scheme, and was one of the reasons why the number of letters was reduced from four to two. Shortcuts - such as recruiting tutor's children to do the label-sticking, rubber-stamping, folding and inserting - help alleviate the burden, but it remains a chore and a labour of love.

Our third objective - that of eliciting more consistent submission of assignments through regular prodding - does not seem to have been achieved. Our impression is that 'drop-out', unmotivated students treat the personal tutor letters with about as much enthusiasm as they treat the regular study material - which is to say, with resounding apathy. There seems to be little indication that there was an increase in the submission of assignments, or a raised pass rate as a result of the 'prodding' letters, and so these were abandoned.

THE PERSONAL TUTOR SCHEME : CONCLUDING REMARKS

In conclusion, we in Practical English feel that the advantages of the personal tutor scheme in creating a didactic relationship characterized by didactic intimacy - an environment likely to foster motivation, and language acquisition in particular - far outweigh the disadvantages of some five working days a year spent dealing with the paper paraphenalia. The scheme does presuppose commitment and dedication on the part of the tutors - but surely these are our tools of trade?

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APPENDIX A

UNIVERSITY OF SOUTH AFRICA

P O Box 392 Pretoria 0001
Telegrams Unisa
Telex 3777

Telephones 440-1525

DEPARTMENT OF ENGLISH

Our reference
PEN100-3/00U/87
PEB1U0-E/000/87

March 1987

Dear

Welcome to Practical English! I shall be your personal tutor this year and shall be taking a special interest in your progress.

My primary role is to assist you academically and I should like you to involve yourself in the work programme so that you can derive the maximum benefit from the Practical English course. I appreciate your difficulties as a part-time student with other commitments, but regular attention to your studies will help you to overcome many of your problems. Steady application during the year will improve your chances in the examination, eliminate the stress that accompanies exams and allow you to enjoy your studies.

However, you are not just an assignment-producing machine. If any problems at all - with your health, your home life, your work or, say, your military commitments - affect you and your studies, please let me know when they happen so that I can help you to make the necessary adjustments to your study programme. I shall not be able to help, for instance, if you only let me know in September that you have been ill all year and have submitted no assignments.

Please refer all queries and problems directly to me. Should you want an interview, please arrange an appointment with me through the Practical English secretary, Mrs Van Eeden (440-1525) If I am not available, one of the other tutors will be happy to see you.

Please do not hesitate to phone me or to write to me if you want to discuss something. I look forward to getting to know you.

Yours sincerely

UNISA

APPENDIX B

THE PRACTICAL ENGLISH

ALL STARS
TEAM
OF 1987

BARRIE GOEDHALS

A being over fifty who likes wood, plants, medieval poetry, Gregorian chant, ragtime and kwela music - and Practical English students. He is married with two teenage children - therefore rapidly turning grey. If it were not for the mosquitoes, he would like to win a jackpot and sit under a tree.

KEITH RICHMOND

Posing for these photographs is a poor substitute for meeting you individually. My field of interest is the humanities, with particular reference to language, literature and education. I look forward to a more personal exchange of words with you in the near future.

DAVID LEVEY

I've been at Unisa for six years, teaching South African and medieval literature as well as Practical English. My wife and I have an enormously lively five-month-old son. I do find time for other interests though, especially photography!

MARGARET VAN ZYL

Basically I am - of course - human; more specifically, a woman and a mother, trying to be an academic and a feminist. I have a passion for science-fiction, crazy earrings, Cape Town, pizza, and the English language. My ideal teacher is compassionate, creative, competent - I'm working on it!

LAUREL BECKER

Teaching is a profession which I really enjoy as I am very interested in the varieties and degrees of interaction between people. My home and family, my career as a lecturer, music, travel and church involvement all add a great deal to the enjoyment of my life.

CATHY PIENAAR

I have been a tutor at Unisa for five years. I am married and have two children. My interests are the teaching of English as a second language, and the relationship between culture and vocabulary. Cats and aerobics occupy what spare time is left.

BRENDA SPENCER

I have been working for the Practical English team for seven years, first as an external marker when my children were babies, and now as a full-time tutor. Like most of you, the conflicting demands of work, home and study make mine a full, exciting and, at times, impossibly demanding life. Any spare time which I have I divide between reading, pottery, Sunday School teaching, orchids and modern political drama.

SUE KRÖGER

Over the years I have enjoyed working with Practical English students and helping them with their problems. As I am also furthering my studies I understand their situation. My outside interests which I enjoy with my husband and two children include camping and hiking.

APPENDIX C

UNIVERSITY OF SOUTH AFRICA

Telephone (012)440-1525

P O Box 392 Pretoria 0001
Telegrams Unisa

Department of English

August 1986

PEN100-3/000/86
PEB100-E/000/86

Dear

I should like to remind you that you have less than a month in which to fulfil the 'D.P.' requirements for admission to the Practical English examination.

Would you add up the Admission Credits your assignments have earned you thus far. If you are uncertain or have any queries about your 'credit rating' do not hesitate to get in touch with me.

If you have not yet reached the required total of 100+ you should make every effort to do so. If you have exceeded this score, why not submit the last few assignments anyway? These additional exercises could prove invaluable in preparing you for the examination.

Yours sincerely

TUTOR (Practical English)

UNISA

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THE VALUE OF DISCUSSION GROUPS TO UNISA STUDENTS

by J. LAMBERT

It is perhaps fitting that I was asked to submit this paper, for over the years the history department has built up a reputation for its enthusiasm for group discussions. In my paper I have drawn on my experience in the department and particularly with 1st-year students. Although the way in which groups are offered and discussions conducted varies from department to department, I am sure the similarities will outweigh the differences.

Despite being a distance education university, Unisa has always offered a limited measure of face-to-face contact between the lecturing staff and students. Students in the Pretoria/Reef area are able to visit lecturers at Unisa, an opportunity shared by those from other areas who are prepared to travel to Pretoria. In addition to this contact, however, the university also makes provision for a limited number of lectures or tutorials in the main centres of the country.

In the early days of the university's existence as a distance education institution, this facility was available to students basically in two forms. In a number of departments, lecturers were prepared to offer their time to conduct tutorials for small groups of students. These were unofficial tutorials in the sense that the initiative for forming a group usually came from a number of students who contacted the relevant departments to arrange for one or more lecturers to attend their discussions. Because Unisa has limited facilities for tutorials they were often held in the homes of the students or lecturers. As they were of an unofficial nature, it was up to each lecturer to decide whether he was prepared to offer his time or not. An obvious disadvantage of this type of contact was that it could only benefit students in the Pretoria/Reef area. Although less common than in the past, this type of contact still continues today. Speaking personally, I find contact with these groups the most stimulating aspect of my work.

Official lectures were provided by the university in the form of vacation schools. These took place annually in Pretoria and usually lasted for two weeks. An advantage of a vacation school was that lectures were provided by all departments at the same time of the year, thus reducing the cost of attendance for students from outlying areas. The main disadvantage, and this became particularly acute as the size of the university increased in the late 1960s, was that, in order to accommodate every department, very few lectures could be offered in each course. There was thus little time for discussion, many lecturers were aware that they were fighting a losing battle in the race against time, while students found it difficult to absorb the amount of material being thrust on them and tended to rely more and more on recording lectures.

By 1975, a growing realization that vacation schools were no longer fulfilling a useful function persuaded the university to consider changing to a system of providing seminars to students rather than of offering formal lectures. These would be offered in centres other than Pretoria with each department deciding at which time of the year to offer seminars, and which time of day would be most convenient for its students. Providing that sufficient students in an area wanted a visit, the university would be prepared to finance and arrange it. It would also be possible to arrange for small groups of students, which would facilitate discussion and do away with formal lecturing. It was still intended to offer vacation schools in Pretoria but the unrest of 1976 led to the cancellation that year of classes in Atteridgeville and Eesterust and to the extension of the seminar system to Pretoria as well.

As far as lecturers were concerned, the change did not meet with universal approval and considerable controversy has continued since 1975 to surround the concept of discussion groups. While much of the antagonism comes from lecturers who dislike face-to-face contact and are happier dealing with students by correspondence, there are valid criticisms of the rôle and value of groups. The most important is that the

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discussions benefit relatively few students. For example, in the history department, between 1975 and 1979, despite a steady annual increase, an average of only 20,6% of registered 1st-year students attended discussions. In the 1980s this figure has not differed appreciably; for example in 1986, 23,5% of registered 1st-year students attended discussions.

The second great drawback is that although more centres can be visited than under the vacation school system, the staggering of visits means that a student from, say, Nelspruit doing three courses, will have to travel to Pretoria for possibly six or more sessions during the year instead of only once. The financial outlay that this involves may prevent some students from attending the classes and ensures that economically disadvantaged students, often those most in need of the assistance offered by discussion groups, are unable to benefit. This argument will be examined in more detail later.

The system also places a heavier load on lecturers. Time is now spent away from home attending sessions while it obviously entails far more work preparing for a course of tutorials than for one or two lectures. By contrast, the value of such tutorials to lecturers is patently obvious. They not only provide students with access to members of the academic staff, but also provide the latter with invaluable feedback from students as to the suitability of their courses and their ability to transmit knowledge.

In general, discussion groups are held in the country's main centres, particularly in Pretoria, Cape Town, Durban and Pietersburg. In addition, towns such as Port Elizabeth, Kimberley, East London, Umtata and Windhoek receive visits from a number of departments.

Because of the difficulties involved in ensuring that there are no clashes of venues and times, arrangements for visits are made a year in advance. Then at the beginning of the academic year lecturers are allocated to the various centres and decisions are made on the topics to be discussed. The history department visits three centres other than Pretoria - that is Cape Town, Durban and Pietersburg. Two visits are usually made each year and each lasts for three days. Classes are offered for all courses in History I, II and III. Sessions are of 80 minutes a day in each course, or section of a course - a total of six classes a year. Provision is also made for discussion groups in Pretoria for honours students.

The ideal study group consists of a small number of students, preferably not more than twenty. In a group of this size it is possible for the lecturer to interact far more effectively with his or her students and to encourage individual participation from most of those present. It is possible to identify problem areas in the course and single out students with difficulties more easily than is the case in a larger group. A small group also encourages contact between students and can be used by the lecturer as a way of instilling confidence in members of the group.

As a small group encourages individual participation and discussion, it is difficult for a student to participate unless he has prepared the work beforehand. It goes without saying that no lecturer can expect to achieve anything in a discussion unless the students have been informed of the topic to be examined and been asked to prepare it. Whereas the anonymity of being in a large group enables a student to conceal his ignorance, it is my experience with small groups that most students find the embarrassment of not being able to participate in a discussion sufficient to persuade them to prepare for later classes.

A way of encouraging participation is to ask students in advance to submit papers for discussion. This again can only work in a small group but experience has shown that it can often prove a futile exercise. In the time available it is impossible for each student to read his or her paper with the result that only those who do, benefit from the criticisms offered while the remaining students spend their time copying the lecturer's comments on the essay. Students who have prepared their work also tend to complain that others ask to photocopy their essays in order to benefit from the work which they have done. Bearing this in mind, most lecturers in the history department no longer ask for written essays, while still stressing the need for a general preparation.

Unfortunately, with increased enrolment at Unisa in the last decade, it is now seldom possible in History to provide seminars of an ideal size. It is now common to have 1st-year groups of up to fifty students. This places a great responsibility on lecturers to ensure that lecturing does not degenerate into dictation.

Given the fact that most groups are too large, strictly speaking, to be considered as discussion groups, it is virtually impossible for a lecturer to ensure that all members of the class have come prepared. There is unfortunately little that can be done about this apart from accepting that those who are unprepared will benefit little from the seminar. To adapt the contents of the lecture or tutorial to cater for these students is futile, for the purpose of the discussion will be lost while the rest of the class will, rightly, feel that their time is being wasted.

If students are to benefit, it is essential that the lecturer be prepared. It should not need to be said that this preparation should be thorough enough to enable him to cope with any questions that arise, and as the topics set should be of a type which are designed to explore links between sections of a course or explain underlying causes of events, he must be able to offer more to his class than they can find in their guides. It is a particularly worrying aspect that there are lecturers at Unisa who believe that the sole purpose of a discussion group is to give them the opportunity to read sections of a study guide or prescribed work to their students, and to allow the minimum time for discussion of the contents. As far as time and money are concerned this is counter-productive for the lecturer, the class, and the university.

Bearing in mind the fact that students doing, say, History III which has three sections, will be expected to attend three discussions a morning - from 8.30 to 12.50 - for three consecutive days, they will need all the encouragement they can get to prevent their attention from flagging. I would say that after knowledge of his topic, the virtue most needed by a lecturer is enthusiasm; enthusiasm not only for his subject but also for his students. Without it he will not be able to identify with them or empathize with their difficulties and needs. That important personal spark between them will be missing, and without it I query the value of the contact for either the lecturer or the students.

I am convinced that, were Unisa an ideal university in which all lecturers ensure that discussion groups function effectively, and in which all students could attend the seminars, a discussion group, even if the class is large, would be the most effective way of transmitting knowledge and love of a subject to students.

We have, however, seen that these conditions do not apply. In addition, Unisa is moving into the age of technology and is increasingly able to provide audio-visual contact with its students in the form of cassettes, tape-slide sets and videos. Through these media the university is able to reach a far wider student body than is the case with groups and, bearing this in mind, we have to ask ourselves whether we are really justified in continuing to provide this type of face-to-face contact?

To answer this we have to ascertain what the purpose of discussion groups is. I have argued that they are essential for showing lecturers how students react to their course and have pointed to advantages such as providing contact between students. Yet the most obvious purpose surely is that they are to prepare students to cope with the course, not, as many students would have us believe, to prepare them specifically for the examinations. This preparation is particularly important for 1st-year students who are new to the course and, in many cases, are new to tertiary education. I believe that the contact made available in the groups can be the best way of offering this preparation.

Before going any further, I would like to present a number of statistics to show the extent to which discussion groups benefit those students who attend them. The history department no longer keeps detailed statistics of the performance of students attending discussion groups. The following figures are for the first four years in which the system operated: 1975 - 1978.

HISTORY 1	1975	1976	1977	1978
Registered students	2062	2029	2131	2402
Students who attended seminars	257	340	452	551
Percentage of registered students who passed	26,7%	24,3%	24,6%	25,9%
Percentage of seminar students who passed	69%	59%	48%	49%
Percentage of registered students who obtained over 65%	4,3%	3,8%	2,5%	3,4%
Percentage of seminar students who obtained over 65%	15,2%	13,5%	7,3%	8%

Although these figures show a considerable drop between 1975 and 1978 in the percentage of discussion group students who passed or who received more than 65%, they nevertheless show that a student who attended seminars had a considerably better chance of doing well in the examination than if he had not made use of the opportunity. The statistics should, however, be treated with caution. It is possible that many of the students who attend do so because they are particularly motivated and that they therefore have more chance of passing the examination than do less-motivated students. A more accurate picture of the value of groups to the university as a whole can possibly be provided by comparing, not the examination results, but the type of student who can or cannot attend the classes.

In deciding whether to make use of the opportunities offered in seminars, students have to consider a number of factors, the most common of which would probably be: motivation; financial outlay; and availability of time.

Motivation is possibly the most important of the three factors and can be looked at in a number of ways. In the first place there is the keen student who wants to make the most of the course and who sees discussion groups as offering valuable insight which is not available in any other form, be it guides, cassettes, or individual contact with lecturers. Although keenness need not automatically equate with academic success, these students are usually sufficiently motivated to work hard at their studies and accordingly enjoy a high pass rate. These students also often use the opportunity of meeting fellow students to form informal study groups which continue for the rest of the academic year.

Under the term motivation can, however, also be included those students, unfortunately many, who see discussion groups merely as providing an ideal opportunity for finding out how little they need know of the course. The student who has only come to a seminar for examination tips or to find out which part of the guide can be ignored, is, I am afraid, common. Ironically, for this type of student, the ideal lecturer is not one who provides stimulation or insight into the course, but rather the one who slavishly focuses on the guide, thus showing exactly what is, to him, important. As far as examination results are concerned, it is unfortunately true that this happens frequently enough for this type of student to benefit. Whether he or she gains anything from the course, however, is questionable while, as a lecturer, I have often been driven demented watching a student spend an entire period searching vainly in the guide for what I am saying rather than listening to me.

But unfortunately those students most motivated to study are not always those who have the opportunity of attending seminars. It is usually the urban-based, more affluent student, often a White, middle-aged housewife who can attend while an equally motivated Black schoolteacher from a remote part of the country cannot afford the money for fares and accommodation.

It is not only lack of money which prevents students from attending seminars. Virtually all of our students work and it is not always possible for them to use their leave for this purpose. Bear in mind that a History I student would have to use six days leave to attend seminars in History alone. Should he be doing one other subject and have to use another six days for that, twelve of his annual vacation days would be used. In passing let me point out that the history department always takes school holidays into account when arranging seminar dates and ensures that no teachers of our various education departments are disadvantaged. But although leave is not necessarily a problem for students who are teachers, it could prevent others from attending group discussions.

Once again, students in distant rural areas are those most likely to find it difficult to attend seminars and here, too, as with finance, it is the less advantaged student who is not being reached by the present system. To me, this raises the most important objection to seminars - is Unisa really justified in spending so much money on a teaching aid from which the least advantaged members of the student body are excluded? Bearing this in mind, and the expense and time involved not only for students, but also for lecturers and the university, is it possible to justify the continuation of discussion groups or should the university rather explore alternative ways of providing face-to-face tuition, or concentrate more on the provision of audio-visual contact with its students? As we become increasingly a university catering for the needs of Black rather than White students so this question is going to increase in importance and the university is going to be seriously shirking its duty if it ignores it.

In the meantime, bearing in mind the fact that discussion groups can only reach a limited number of students, it is essential for the various departments to find a way of extending the benefits of seminars to those unable to attend. The most sensible way is probably one which has been used for the last five or six years by History I lecturers - that of sending each student a cassette after each session outlining what was achieved in the discussions. Previously the trend had been to send a tutorial letter containing an outline but far more information can be given on a cassette than in a letter, and the former has the great advantage of giving students a different, more personal, type of contact with lecturers.

All the indications appear to suggest that, just as Unisa had to make far-reaching decisions in the early 1970s as to the future of the vacation schools, so a similar crisis is being reached today. Some of the problems have become apparent from this paper: the fact that too few students are reached and that classes are too large being the most formidable. Trends which have been developing in the last few years, however, indicate that the difficulties faced by the lecturing staff are increasing, and will continue to do so.

The most disturbing problem is tied up with the fact that, despite Unisa's continuing growth in student numbers and escalation in tuition fees, the university appears to be finding it increasingly difficult to finance its annual expenses. The following table shows that overall there has been a steady increase in the amount the university allocates each year to discussion groups:

	Amount allocated to all departments	Amount allocated to History department	%
1975	R100,000	?	
1976	240,000	?	
1977	200,000	?	
1978	304,000	10,565	3,5%
1979	300,000	?	
1980	303,986	17,737	5,8%
1981	318,177	19,490	6,1%
1982	360,000	27,991	7,8%
1983	437,400	26,267	6%
1984	470,606	12,873	2,7%
1985	500,000	18,552	3,7%
1986	600,000	22,264	3,5%
1987	630,000	20,204	3,2%

Yet if we look at the amounts allocated to the history department it can be seen that in real terms the university is not providing it with the money it needs to enable its discussion group programme to function successfully. Although in 1987 the department is receiving almost twice the amount it was allocated in 1978, this amount has not kept up with inflation. In addition it can be seen that since a peak of 7,8% in 1982, the percentage of the budget allocated to the department has been steadily dropping. (For comparative purposes 1984 should be discounted. Considerable pressure was placed on the department to cut its discussion group expenses and the result was an over-reaction).

This cutback has had serious implications for the history department's discussion group programme. As the percentage amount made available for the department's budget has been whittled away, so the services it offers to its students have suffered. Some examples for History I will make this clear:

Both Port Elizabeth and Pietermaritzburg were on the lecturers' itinerary but have now been dropped. Thus, as far as the department is concerned, one of the original advantages of discussion groups over vacation schools - that more centres could be reached - is losing its validity. In addition, as far as the former city is concerned, students in the Eastern Province and its adjacent territories now have no centre closer than Cape Town or Durban. As 9,4% of 1st-year History students in 1984 lived in the Transkei alone, the lack of a centre in this area seriously curtails the department's ability to reach its students there.

In the second place the department has had to curtail the amount of time it allocates to visits. History I lecturers used to spend five days in each centre per visit, whereas now they are only allowed three days, thus cutting the time for discussions from ten days per year to six. In 1985 sufficient money was allocated for only one visit but fortunately this experiment was not repeated.

Thirdly, in a centre such as Durban where there are an average 150 to 200 1st-year History students who attend seminars, four lecturers were sent for each visit. Now only two are able to go, which means that they are faced with classes of between 70 to 100 students instead of 40 to 50 as in the past. Under these conditions it has become virtually impossible to conduct discussions. What is in fact happening is a return to the difficult conditions of the last years of the vacation schools.

These problems are compounded by the fact that the university is also confronted by the challenge to meet the needs of its

rapidly changing student body. Whether we like it or not, the educational standard of students coming to Unisa is steadily dropping: for example, in History I in 1984, only:
42% of 2,049 students had conditional matriculation exemption;
41% had either not written History for matric, or had failed;
while 61% of those who passed matric history had received 50% or less.
It is also significant that 33% of the students used neither English nor Afrikaans as a home language.

I would argue that this decline in standards makes it even more imperative than in the past to make personal contact with our students possible. As discussion groups are conducted at the moment, they are not fulfilling their intended objective and it behoves the university to consider whether it should not adopt a completely new approach to lecturer-student contact.

These problems are going to have to be confronted if discussion groups are to continue to play an important rôle in the life of the university. It is not clear what Unisa can do unless it is prepared to pour considerably more money into the programme. Perhaps the time has come for the university to acknowledge that it has grown too large to reach its students effectively? And, if we as lecturers are unable to do this, should the university not consider appointing external tutors to provide the personal contact we fail to give?

STUDENT SUPPORT IN DISTANCE LEARNING

Dr. Elsabé Swanepoel
Department of Fundamental Pedagogics
University of South Africa

INTRODUCTION

Aristotle died in the year 322 B.C. In his Politika (VIII, 1337 a-b) he addresses the question of the nature and task of education, its importance for the State, and the State's responsibility towards education. He comes to the following conclusion:

> "It is clear then that there should be legislation about education and that it should be conducted on a public system. But consideration must be given to the question, what constitutes education and what is the proper way to be educated. At present there are differences of opinion as to the proper tasks to be set; for all peoples do not agree as to the things that the young ought to learn, either with a view to virtue or with a view to the best life, nor is it clear whether their studies should be regulated more with regard to intellect or with regard to character. And confusing questions arise out of the education that actually prevails, and it is not at all clear whether the pupils should practise pursuits that are practically useful, or morally edifying, or higher accomplishments - for all these views have won the support of some judges; and nothing is agreed as regards the exercise conducive to virtue, for to start with, all men do not honour the same virtue, so that they naturally hold different opinions in regard to training in virtue" (translation of Aristotle by Rackham 1950 -- as quoted by Dreyer 1980:1).

Aristotle could have written these words for the year 1987. Throughout the ages a few fundamental principles with regard to education, have withstood the onsloughts of time. Granted these principles have been interpreted differently in different times; in principle, however, they have remained unchanged.

DISCUSSION : "STUDENT SUPPORT IN DISTANCE LEARNING"

At first glance the title implies "teaching" and "learning", which together make for education. At further consideration, however, and bearing the nature of education in mind, a seeming contradictio in terminus emerges. The title furthermore reveals a supposition that education (teaching and learning) does indeed take place. This paper will argue the question of how, and if, education can really be actualised in "distance teaching", and more specifically, "distance teaching and learning" at university level.

WHAT IS EDUCATION?

A very simplistic definition of education could read:

> The support and guidance rendered by a person
> who knows
> to a person
> who does not know
> with the
> aim of helping
> the latter to become knowledgeable.

In education this knowledge refers to norms, viz. the demands of propriety. If the ultimate aim of knowledge transfer is not simultaneously the transfer and actualisation of norms, and more specifically with regard to propriety, it cannot be education. Whatever takes place then is irrelevant to this discussion.

This paper does not call for a discussion or detailed exposition of the nature of education proper. Suffice it to say that one of the basic premises of this discussion is that education takes place only, and to the extent the four fundamental constituents of the education relationship, with all their essentialities are actualised, namely

trust ---with its essences, int. al.,

> acceptance, bonding, intimacy, proximity, willingness to involvement, respect, security, empathy, commitment, etc.;

understanding , ---with its essences, int. al., understanding and acceptance of the other as a person, understanding and acceptance of the other's being different, understanding and appreciation of potentialities and limitations, understanding the demands of propriety, understanding of futurity, understanding of human vocation as the response to a call, self-evaluation and self-understanding, understanding and appreciation of sense of insecurity, etc.;

authority, ---with its essences, int. al.,

gratitude for security, propriety, obedience, being addressed by norms and responding to their demands, responsibility, commitment, etc.,

aim, ---with its essences, int. al.,

accountability, acceptance of responsibility, independent responsible decisions, acceptance of the consequences of choices and actions, philosophy of life, respect for human dignity, etc.;

An education relationship presupposes:

- DIALOGUE, with its essences, empathy, and being attuned to, (the German Einfühlung - Heidegger as referred to by Kelly and Tallon 1972). Dialogue is more than mere communication with its qualities of encoding and decoding, where there is always the possibility of the message being lost (misinterpreted by) between the encoder and the decoder (Lubbers 1971 as referred to by Van Niekerk 1986);
- I - THOU relationship --- only through the Thou can man become I --- I become through my relation to the Thou; as I become I, I say Thou (Buber as referred to by Kelly and Tallon 1972:139). Only in the realisation of the I - Thou relationship, does the we-relationship come to life;
- PERSONAL relationship. According to Van Niekerk (1986:39) education is primarily a personal relationship which becomes concrete through affective and cognitive means. By attaching

meaning to the world, a person expands not only the content of his experiential world, but the world also gets formal-functional meaning. He experiences the world as "effective-for-him";

* According to Oberholzer & Greyling (1981) a personal relationship implies a

- FACE TO FACE relationship, in which the

> "other is prepared to meet me face to face, to read what is written there. This is not possible unless he turns towards me...on every human face, from birth to death, one can read just two words: help me. This is the very essence of the agogical, also in the androgogical mode, otherwise the whole business of accompaniment of one being by another becomes a flagrant lie...The requirement is that the other should not hide his face, but should turn towards him and listen to his need" (ibid., p. 80-81).

- WE-RELATION. According to Schutz the essential ingredient of a face-to-face situation is awareness of the other. He calls this awareness the Thou-orientation.

> "...temporal and spatial immediacy are essential characteristics of the face-to-face situation...The Thou-orientation is a prepredicative experience of a fellow being. In this experience I grasp the existence of a fellow-man in the actuality of a particular person who must be present here and now. The Thou-orientation presupposes the presence of the fellow-man in temporal and spatial immediacy. The essential feature of the the Thou-orientation is the recognition that a fellow-man is before me;..."

But the Thou-orientation cannot be "pure" since it can be actualised in different degrees of concreteness and specificity. It can be one-sided -- if I turn to you but you ignore my presence --, or reciprocal -- if I am oriented to you, and you, in turn, take my existence into account. Then the Thou-orientation becomes a "pure" We-relation (Schutz, 1964 -- (Kelly & Tallon 1972:199).

- RESPECT FOR INTIMACY, which implies a willingness to listen to the other and giving him opportunity to disclose his world.

> "Disclosing your world means exposing your confidences, weakness and failures" (Oberholzer and Greyling, ibid., p. 82).

- SUPPORT, which has a far deeper meaning than assistance.

> "Support implies being engaged in the lot of the other, assuming responsibility in the supreme sense of the word" (ibid., p.81).

The prerequisite for support is that the "supporter" should become acquainted with the mysteries of the world of the person in need since

> "one can only support him in terms of the secret forces operating in that world" (ibid., p. 82);

* INTERPERSONAL, as a relationship of INTERDEPENDENCE. Being-with is an existential constituent of Being-in-the-world.

> "Dasein-with has proved to be a kind of Being which entities encountered within-the-world have as their own. So far as Dasein is at all, it has Being-with-one-another as its kind of Being" (Heidegger -- Kelly & Tallon 1972:184).

Bearing these remarks in mind, the following question naturally springs to mind:

Is it at all,
and how is it possible
for education to be actualised
over a distance, when teacher and learner
are not engaged
in a personal face-to-face relationship?

DELIMITATION OF PROBLEM

1 LEVEL

This paper will not deal with the education phenomenon at a pedagogical level. The form of "distance education" being addressed here, is at tertiary, i.e. andragogic level.

> "...the term andragogic relates to the accompaniment of one adult by another, even when one of the partners is still an early-adult. This accompaniment covers a wide range of human spheres,...The field (of study) is therefore not only adult life as such, but adults in companionship with other adults. ...Adults - in companionship with other adults - represent a specific mode of the agogic through which true adulthood reveals a particular characteristic, namely adulthood in dependence on a fellow-adult in whose company and under whose guidance the future and its demands can be faced with dignity" (Oberholzer & Greyling, ibid., p. 40-41).

2 AREA

"Distance education" is presented in different institutions among which also the university. This paper is concerned with the education phenomenon in the university as an educational institution. At this point a discussion of the "university" as such seems relevant.

NATURE AND TASK OF THE UNIVERSITY

UNIVERSITY

The university as an educational institution has become so commonplace, that one hardly ever thinks about where it came from and what it stands for. The following brief historical outline seems relevant.

BRIEF HISTORICAL OUTLINE

TRADITIONAL UNIVERSITY

Since the awakening of scientific thought in the sixth century B.C. the Greeks clearly differentiated between true, fundamental, what we call scientific knowledge (epistèmè) on the one hand and opinion (doxa) and practical skillfulness (technè) on the other. One of the essential human capacities of man, is his capability to the acquisition of true scientific knowledge, i.e. the possibility to theoretical reason, which in its prime form was known as *sophia* (wisdom). Only second in value and way below the importance attached to *sophia*, came *phronèsis*, the practical wisdom. The attitude of dedication, as well as the activity of dedication towards *sophia*, leads to *philosphia*, the love of wisdom which embraces all scientific knowledge.

Even as early as the 5th century B.C. signs of specialisation appeared. Despite of this, the unity of science was preserved. In Plato's *Akadèmos*, the prototype of Western University, philosophy was the most important. This unity was continued in the medieval university. The unity is based on the following principles:

1 All science originates in philosophy;

2 There is only one form of knowledge and truth, upon which all knowledge is based:

knowledge for the sake of knowledge, and

truth for the sake of truth;

3 Science bears formative value.

PRINCIPLES AND AIM OF EARLY UNIVERSITIES

* The principles of these early universities were that:

--knowledge as well as the sharing of knowledge, was of formative value to man;

--the learned person had to comply with certain norms so that education and teaching could take place concomitantly.

* The ultimate aim of academic involvement was

--the formation of a balanced, harmonious, cultivated, virtuous and godfearing, pious person.

This unity is expressed in the word *university*, which originated in the medieval *universitas scientiarum*. A university which did not present all the sciences, was not considered complete. A university which, therefore, does not have a faculty of theology or medicine is, in terms of Western tradition, a contradiction in terms.

HISTORICAL INFLUENCES ON THE TRADITIONAL FORM OF THE UNIVERSITY

The most important single factor influencing not only all facets of Western civilisation, but also the university as educational institution, was the emergence of natural sciences and technology as a natural consequence of these sciences. It also resulted in the socalled Industrial Revolution. These three interlinked occurrences had tremendous effects on the Western World, and obviously also affected the university and its curricula extensively.

The ever increasing industries had ever increasing demands with regard to trained people, and universities were required to "produce" people with relevant skills and knowledge for specific jobs. At the same time, there were a greater number of people who could and wanted to be trained. These developments, at the same time, resulted in a shuffling of the hiarchy of values. Traditionally religious, moral, intellectual and esthetic values were given priority in university curricula. The significance of these human sciences lay exactly in their formative value. With the technological and industrial boom, however, the emphasis shifted from the formative value of the humanities to the utilitarian and functional values of the natural sciences. Industries and the State made more money available for "job training". The suppliers of university funds, on the one hand, determined which faculties and departments were to be established, and on the other hand demanded their "pound of flesh", in the form of efficient, productive labourers. No longer could students attend universities for its intrinsic formative and enriching value --- in fact, such a motivation was frowned upon and almost regarded as immoral --- "Such a waste of human potential." Students had to take courses which would prepare them for jobs and make them "useful" for the labour force.

After World War II the socalled democratisation of the university took place, having the following implications:

--unlimited accessibility. All people with the applicable academic qualifications could gain access to the university. Not even poverty was a hindrance to any student any more, it was the duty of society to make it possible for him, since it was his right and not privilege to attend a university;

--students gained a greater say in the management and curricula of universities.

Student revolutions are evidence of how this influenced the nature of the university (Dreyer 1980: 1-7).

POSITION OF THE UNIVERSITY TODAY

The idea of a *universitas scientiarum* still exists, but the original ideal and motivation of "the formation of a balanced, harmonious, cultivated, virtuous and godfearing, pious person", in other words, the formation of a well-rounded person, alas, no longer exists. The institution is still a *universitas*, but now a *universitas of the market*. It is a well-known fact that the market is an insatiable monster. What is alarming is that the hand which provides the money also plays the tune. Present day arrogance demands knowledge with which man can transform the world, but seems to ignore the fact that man also needs something to transform him into a fullworthy person. The curricula of universities have undergone radical changes gaining a great deal of "efficiency" but losing an equal share of "civilisation and education". The demands of the market-place for an ever increasing number of efficient workers, obviously makes a demand on universities to employ more "efficient" teaching skills to "produce" more and more "efficient" workers who can be "productive" in the labour market. Universities and at present even schools, yield to the temptation and demands of incorporating technology, not as "supplementary educator", but indeed, "substitutory educator".

Technology and industrialisation are irrevocably part of man's world. Man can neither flee from it nor renounce or negate it. Man does not need to succumb to the world; being human, man has the capacity of altering his attitudes and approaches in order to cope with the demands of the world. It is true, that many a person experiences the technocratic and industrialised world as a threat to his humanity, and would indeed like to escape from it. Man cannot become despondent and try to escape from reality, as man, he has the vocation and commitment to face reality and still preserve his humanity. If man is to live the life of a human being at all, if he is to come to selfhood or self-existence (Jaspers), the triad,

*Being,

*Being-with-others,

*Being-with-others-in-the-world,

has to be actualised.

"The reality of the world cannot be evaded. Experience of

> the harshness of the real is the only way by which a man can come to his own self. To play an active part in the world, even though one aims at an impossible, an unattainable goal, is the necessary pre-condition of one's own being. What we have to endeavour, therefore, is to live at harmony with the powers of this world without being absorbed by them...
>
> Technicisation is a path along which we have no choice but to advance...Invective is of no use here; we have to overcome. The world of technique, therefore, must be taken as a matter of course;...To render the world of technique absolute would be destructive of selfhood, and therefore our sense of the value of technical achievement must be permeated with a new significance...
>
> The significance of entering into the world constitutes the value of philosophy. True, philosophy is not an instrument, and still less is it a talisman; but it is awareness in the process of realisation. Philosophy is the thought with which or as which I am active as my own self. It is not to be regarded as the objective validity of any sort of knowledge, but as the consciousness of being in the world" (Jaspers, as referred to by Kelly & Tallon 1972:162-163).

As technicisation and industrialisation are inextricably part of human world, so is education. New developments bring new demands, also to the doorstep of education; and thus the need and demand for "distance education" emerged. True, both students and lecturers could succumb to the insatiable demands of the "modern" world, and indeed fall prey to the "technocratic monster"; or they could use their own humanity as criterion and norm to direct and evaluate their own actions, and thus actually boot technological developments to the advantage of humanity. To live in the world, "...to work it and take care of it" (Genesis 2:15).

Man has a commitment not only towards his fellow human beings, but also towards the world and everything it entails. Man has the obligation to preserve his humanity in the midst of all beings, both human and material in the world.

The following warning by Martin Buber seems serious enough to be heeded by all people involved in a human world:

"And in all seriousness of truth,
hear this:
without It man cannot live.
But he who lives with It alone
is not a man".
Martin Buber

THE NECESSITY FOR DISTANCE EDUCATION

The democratisation for the university together with the tremendous demand of trained labourers, and one might add, expectations of the masses that education could change social and economic circumstances and indeed vouchsafe socio-economic prosperity, led to a throng of students to university campuses.

This gave way to basically two trends in university education:

* an endeavour to accommodate as many students as possible;
* to "bring the university to the student" who could not share in the privileges of an attendance university, by inter alia distance education.

This is true for all developing countries, but also for southern Africa.

Distance education originated in the following:

* The labour market's ever intensifying demand for skillful and relevantly trained labourers;
* Students' ever increasing quest for employment training;
* The ever increasing demand on people in full-time employment for up-grading of qualifications;
* The geographical aspects of southern Africa; and, let it not be forgotten
* Man's existential quest for security, knowledge, meaning.

At this stage the following questions need to be answered.

-How is distance education possible?

-Why do so many students have the need for distance education?

-What should be taught through distance education?

-What is the ultimate aim of distance education?

HOW IS DISTANCE EDUCATION POSSIBLE?

If one bears in mind what has been said thus far about "education" and the "androgogic" phenomenon, one cannot help but wonder how it is possible to actualise education in a situation where the qualities of "face-to-face"; "intimacy"; "proximity"; etc., all essential qualities for a "We-relation" (Schutz), are apparently absent.

Yet, it is possible to constitute a social relationship with the "absent other" in that the other is experienced as a "contemporary" or an "Ideal Type" in the "They-relation". Schutz explains:

> "Whereas I experience fellow-men *directly* in the temporal and spatial immediacy of a face-to-face situation, this immediacy is lacking in my experience of mere contemporaries. Contemporaries are not present in person, *but I do know of their co-existence with me in time*: I know that the flux of their experiences is simultaneous with mine. This knowledge, however, is necessarily indirect. Hence, the contemporary is not a Thou in the pregnant sense that this term has in a We-relation...The Other who is a mere contemporary is not given to me *directly* as a unique particular Self. I do not apprehend his Selfhood in straightforward prepredicative experience. I do not even have an immediate experience of the Other's *existence*. I can only experience the Other in acts of inference by which I judge that the Other is such rather than otherwise, by imputing to him certain typical attributes.
>
> *Whereas I experience the individual Thou directly in the concrete We-relation, I apprehend the contemporary only*

mediately, by means of typifications".

> My knowledge of contemporaries consists of "...inferences based on and mediated by my experiences of fellow-men, either of particular fellow-men or of fellow-human beings in general. Face-to-face with a fellow-man I witnessed in simultaneity with my own ongoing conscious life the step-by-step constitution of his conduct, of experiences meaningful to him..."

that resulted in the different accomplishments in his life-world. It would be impossible for me to make any inferences, or form any picture of the Other's world, without such original experiences of the world of the Other.

> "...My experiences of contemporaries are thus necessarily derivative and indirect. Neverthelss, it is obvious that I can be oriented to mere contemporaries as I can be oriented to fellow-men. These orientations, too, may range from mere attitudes to social action and social interaction. ...My knowledge of the world of contemporaries is typical knowledge of typical processes."

Through my interpretations and experience of my own and his world, I build up an image of "contemporaries" in the synthesis of my interpretions of the Other's experiences. There is no direct or conscious experience of a concrete Other in the Here and Now, but through the synthesis of my interpretations of the typical experiences of a more or less anonymous Other, it is possible to "...apprehend him as personal ideal type" (Schutz as quoted by Kelly & Tallon 1972: 201-212).

This obviously opens up opportunities , but at the same time poses problems for the "distance lecturer". While it is possible to consititute an image of the " student-type", by a synthesis of his interpretations of "students'" experiences, he could at the same time lose sight of the "student" as unique individual. The lecturer has the obligation to "become acquainted with the mysteries of the world" (Oberholzer & Greyling) of the student in need. It seems essential for the lecturer to have "original experiences" of the life-world of the student to be able to constitute an image of a "personal ideal type" and not only a "type-of-student", with whom he can constitute a "pure" They-relation.

WHY DO SO MANY STUDENTS HAVE THE NEED FOR DISTANCE EDUCATION?

Apart from the reasons given earlier -- demand for skilled labourers, employment training, up-grading of qualifications, geographical aspects, etc -- the primary reason stems from man's most fundamental need, i.e., his need for security. Anyone reflecting on man, must admit that

-'need' is an onticity of human life in all spheres;

-'need' is bred of insecurity.

In his daily existence man acts, learns, knows, chooses, relates, attributes meaning and integrates new meaning into his existing treasure of experience, thus, constituting a personal life-world. To be able to live humanly man needs knowledge. The 'not-knowing' breeds insecurity, and thus his desire to know. Man wants to know, for he has to act.

> "This desire for knowledge so that we can act as we should is not a product of scientific curiosity, but the pathic quest of that uncertainty in which existential need manifests itself from the depths of the insecurity that we feel and endure. Science can never tell us the way we should go, nor can technology save us or offer us utopia, simply because we are not intended for utopia" (Oberholzer & Greyling 1981:75).

WHAT SHOULD BE TAUGHT THROUGH DISTANCE EDUCATION?

WHAT IS THE ULTIMATE AIM OF EDUCATION?

Attention is once more drawn to the words of Aristotle:

> "...At present there are differences of opinion as to the proper tasks to be set; for all peoples do not agree as to the things that the young ought to learn, either with a view to virtue or with a view to the best life, nor is it clear whether their studies should be regulated more with regard to intellect or with regard to character. And confusing questions arise out of the education that actually prevails, and it is not at all clear whether the pupils should practise pursuits that are practically useful, or morally edifying,...".

In my humble opinion the answer to these two interrelated questions could only be:

Students in need
should be taught that knowledge
which would prepare them for,
and make them capable
to cope with the demands of life
as fullworthy human beings.

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ESSENTIAL ANDRAGOGIC SUPPORT FOR THE ABSENT STUDENT IN DISTANCE TEACHING

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1.0 INTRODUCTION

Two of the basic concepts contained in the title require immediate attention. "Andragogic" is the term qualifying the intimate involvement of an adult ("aner") tutor with an adult student in a teaching situation based on genuine guidance or accompaniment. "Distance teaching" is defined by Sommer as follows: 'Correspondence instruction is a planned and systematic activity, which includes the selection, preparation and presentation of the teaching material as well as the securing and supervision of what students have learnt, and in the course of which teacher and student are normally geographically separated from each other the whole time and keep in contact by means of fairly independent media' (tr. from Epistolodidaktika, June 1966 by Holmberg, 1967 : 10). Such organized instruction can, therefore, not be 'the stepchild of education' (cf. Allen and Stein in: Mackenzie, 1971 : 85 & 90 resp.). From this we conclude that the distant or absent student cannot be the stepchild of the distance tutor, and that the tutor cannot go baldheaded for distance teaching. Therefore, these premises form the core of the phrase 'essential andragogic support' used in the title.

2.0 ADULT TUTOR-PARTNER'S SYMPATHETIC ACCOMPANIMENT

2.1 Introduction

As with any residential student, the "invisible" student in a distance-teaching situation also requires to be treated in a humanly dignified manner, and also requires education as the formation of the mind. The tutor is best placed to support the student since he is the professional supporter working in co-operation with semi-professional and non-professional supporters, workplace supporters, special separate support booklets etc. (cf. Lewis, 1984b : 29). However direct and purposeful such support may be, the giving of advice by the tutor is an important subsidiary task of any distance teaching institution (cf. Holmberg, 1960 : 37). The tutor should do everything in his power not to balk his absent student, not to give him short shrift.

2.2 Adult tutor's essential support

2.2.1 Introduction

Lewis uses "tutor" as a general term for the person in an open-learning system who is directly *responsible* for the learner. The tutor is usually a professional – an educator or trainer. His main task is to help the learner to acquire skills and strategies needed to become autonomous, usually through mastery of a particular subject area or skill. He is variously described as "counsellor", "mentor", "coach", "guide", "trainer", "supervisor" and "godfather" (Lewis, 1984a : 93). The *responsibility of the tutor* is, therefore, of the essence. The essential support given by the adult tutor to an adult absent student is, accordingly, andragogic support. Moreover, in study work it is of a very *individual* nature, such as "teletutoring", an instructional system which 'enables a student by means of a telephone to get in touch with his tutor to have individual support in his study work. The student is studying independently with the help of preproduced study material such as a correspondence course. The tutor then calls the student – or the student calls the tutor – and they discuss the work. This two-way communication is always between one student and one tutor' (Flinck, 1975 : 8). Another individual-cum-group system of distance teaching is "teleteaching" which is 'operating by means of a two-way transmitter (telephone) placed in a classroom. It enables a sick or handicapped student to keep up with his class work without being physically present in the classroom. The student can at home hear all that is going on in the classroom (cf. the discussion classes held at distant centres by Unisa), and he can indicate by means of a signal when he wants to speak and answer questions. When he speaks everyone in the classroom is able to hear what he says, as if he were present' (Flinck, 1975 : 7). (The approach in two other systems, viz. "dial-access" and "telelecture" is of a more diverse nature, and yet these systems have specific value for the individual student (cf. Flinck, 1975 : 7).

2.2.2 Personal guidance

Personal guidance to a distant (absent) student is essentially individual help or assistance given to an individual student. However personal it may be, it can be given only in two-way communication, either through dialogue or by technical means as mentioned above, which in essence is reinforcing the postal two-way communication with the aid of tele-communication (Flinck, 1975 : 6). In the days before tele-communication the distance tutor was tempted to rely on the student's self-directing capabilities (believing that every distant student is an eager learner), but today there is no reason why he could not and should not make use of every technological aid at his disposal.

2.2.3 Understanding the distant student

The power of understanding the distant student, and showing consideration for his every need, requirement and prospect, means having empathy with him. Taking this to heart in conjunction with a sense of responsibility, one may concur with Wlodhowski who believes '(a)dult needs and expectations for what they are taught will powerfully influence how they motivationally respond to what they are taught' (1985 : 22).

2.3 Greater support

Because of the separation brought about by distance, the absent student requires greater support than his residential counterpart. Special methods to establish effective dialogue over a distance, need to be devised before the student in desperation hangs on the bell. The starting-point for this is regular contact between tutor and student, and, of course, this cannot be the physical contact of being present in a classroom.

2.4 Unprejudiced psycho-social accompaniment

The sympathetic adult tutor-partner leads his adult student by providing unprejudiced psycho-social accompaniment in his special needs and ideals on his lonely, individual quest for knowledge. The student who embarks on further study by means of distance education, does not, according to Kuiper, concentrate on his work in a socially static occupation, nor is social ambition his only stimulus. He needs to assert himself. A better position, more money or greater prestige might play a minor role in his adjustment to the many changes and challenges of modern society, but the one nagging issue that is always present, is that he continuously feels the shortcomings of his education (in : Sloos, s.a. : 63-64). The tutor in planning his course material must, therefore, take nothing as run of the mill, but should test his objective of supplying essential andragogic support against Lewis's introspective question, 'Have you paid enough attention to the development of attitudes, feelings and skills as well as knowledge?' (1984a : 85). The tutor who cannot honestly answer this question positively, has sold his student down the river.

3.0 SPECIAL NEEDS OF THE ABSENT STUDENT

3.1 Introduction

For the purpose of this discussion the term "need" will be taken as 'a condition experienced by the individual as an internal force that leads the person to move in the direction of a goal. The achievement of the goal is capable of releasing or ending the feeling of the need and its related tension' (Wlodkowski, 1985 : 47). Maslow's holistic and dynamic theory on need assumes that 'need gratification is the most important principle underlyning human development' (Wlodkowski, 1985 : 48). Adults who enroll for distance teaching have different reasons and needs. The 'reasons are based on what they think they need. These needs may be for social interaction, new skills, some type of certification, or simply relief from boredom ... if the content or process of instruction does not in some way meet these needs, the learning will have very little meaning for (them)' (Wlodkowski, 1985 : 23).

Now the irony of this is that the tutor is in the dark about the student's needs, unless he by chance happens to learn about it. 'There is evidence that supports the understanding that adults who are less educated and in the socioeconomically lower classes will be more interested in learning and education that is aimed at their survival needs ... while the more well-educated middle and upper classes will be more open to learning and education that is aimed at personal development, achievement, and self-actualization' (Cross, 1979 in : Wlodkowski, 1985 : 49). The tutor does not have conclusive evidence about his student's class; neither does he know whether student A takes Economics I for sheer interest or as a starting point in a survival course for financial reasons. Therefore, without a method of recognizing specific needs, the tutor is hard put to motivate the student on specific lines. He can follow only a general strategy. This is a problem that requires the attention of the top management of every distance education institution.

It follows, then, that the tutor must fall back on the basic requirement : support — whatever the need may be. The support is needed not for fundamental humanitarian reasons only, but for two simple practical reasons, namely 'because of the open mode itself, in particular the physical separation' that exists between the tutor and the student, and 'because in the most current schemes learners are adults studying part-time' (Lewis, 1984b : 7). Whatever the goal, the student wants more knowledge; whatever his need, he wants fulfilment.

3.2 Overcoming the unfamiliarity of the divergent teaching arrangement

At the start the student finds it difficult to divest himself of the face-to-face method he knows so well. Even before he embarks on the distance education course he needs to be orientated towards his new learning experience (cf. Lewis, 1984 4 : 11). An amount of unfamiliarity will remain up to leaving point. However green in judgement the young tutor might be, he needs to orientate the student in every stage of his studies according to this "non-traditional way of studying" (term devised by Akpofure, 1978 : 3). The tutor must rely on the students' advice bureau of his institution (cf. Van den Bogaerde, 1985 : 104). Student advisors attached to such bureaux have the opportunity to learn more about the students' needs, not only about their choice of subjects and their workloads, and therefore they are in a position to advise students how to study more effectively, and shape up.

Is there anything the tutor can do to counter this unfamiliarity? What role must he play? Not all aspects of teaching, being a many-sided activity as it is, 'are well suited to the special circumstances of communication 'at a distance' in space and time ... (The tutor) will (become) more aware of (his) being only a part of a teaching/learning system instead of the "prima donna" in the classroom'. The tutor must encourage students to ask questions; in this way they will still retain a touch of the traditional method, and feel that the distance does not divorce them from support (cf. Harris, 1975 : 38-39).

Furthermore, the tutor can conceive how the student experiences his "new world", and should answer the following question for himself, 'Am I involved in a conscious programme of induction for my students?' (Lewis, 1984b : 89).

Whatever the amount of unfamiliarity at the outset, the final outcome seems to be promising. The information on student performance gathered over eight years at the Open University has demonstrated 'that great numbers of people can study successfully at a distance' (Taylor, 1983 : 12).

3.3 Overcoming fear of strange tutor

In the beginning the tutor is just a name to the student; he has no visual image of him; his personal qualities are unknown. Lewis explains that the student wonders how the person he has never met, will deal with his work. So he has another need : knowledge of the tutor as a person (1984b : 19). So the tutor must be ready to be natural and authentic with the student, must show interest in the student himself, accept him as he is (Lewis, 1984b : 89), and arouse the student's interest in his course. This brings us to the contents of the course.

3.4 Overcoming fear of strange learning materials, techniques etc.

The belief that teaching is an art, and that the student should make good any deficiencies, e.g. of the tutor, is outmoded. The emphasis today is on a scientific approach to teaching; research is no longer the holy cow. Lewis maintains the teaching content must be structured (1984b : 10). Material and tutor must, according to Popma, remain an extension and realization of the student as a human being (1969 : 8). Strange materials used in distance teaching must be put into practice by the tutor, they must not remain theoretical adherents (Lewis, 1984b : 11). If the practice is neglected, the student will feel unhappy when he battles with his first assignment. The distance-teaching tutor must bear in mind that the student on receiving his package, has the uneasy feeling of not knowing how to deal with it inside a complicated system. So he needs an explanation of the system (Lewis, 1984b : 19).

This is where the tutor must rethink when he prepares material for the new year : what constructive help can he offer to avoid such an impasse (cf. Lewis, 1984b : 19).

3.5 Overcoming the "absent", "invisible" feeling

A very poignant need of the distant student is to overcome his feeling of abandonment, of finding himself at the other end of the world, without personal contact (Van den Bogaerde, 1985 : 69). The support required in this respect is the provision of routes or means of getting out of the maze, namely by informing the student how he can make early contact with the tutor by phoning, writing or meeting (Lewis, 1984b : 20). In this way the student will be made to feel part of the target audience, i.e. all the students for whom a particular course has been prepared (Lewis, 1984a : 93). Now starts the active part. Having accompanied the student through the stages of selection, induction and experience, the tutor enters the transition stage by involving himself in a discussion with the student on the problem of what is coming next, and how the process of dealing with the learning material can be improved (Lewis, 1984b : 89). This brings us logically to

3.6 Overcoming loneliness : the individual quest for knowledge

The student is more concerned with himself than with the group of students doing the same course. He knows that nobody but himself can acquire the knowledge he wants, and he must sit for the examination himself.

3.7 Worded objectives

The student needs objectives expressed clearly, and by supplying his student with these, the tutor supports him no end. The objectives need to be stated in a way that communicates with the student; namely, the skills which a particular course intends to develop, and whether or not the skills are relevant. The objectives help the student to plan his work, and to take on responsibility for his own learning, and they help him to check his progress towards achieving the aim of the course. The objectives provide the tutor with a basis to comment on his students' assignments (Lewis, 1984a : 14) but the student would not understand the comments if the objectives had not been made clear from the beginning (Lewis, 1984b : 10).

3.8 Assistance with assignment

The tutor dare not for one moment lose sight of the fact that it is *he* who assigned the work *to* the student, but it is after all the student who "asked" for the work by enrolling for study. Lewis styles the assignment a *tutor-assessed question (TAQ)*,a piece of work completed by the student, and handed or sent to the tutor for *comment* and *assessment* (Lewis, 1984a : 92-93).

The latter two components go hand in hand. A returned assignment carries little andragogic support if it has only commentary or only assessment as a guide to quality since a combination of the two indicates to the student the relevancy of his standard of work inside the total picture of his progress with the course, i.e. his relevant position on the uphill road he has traversed that far. The assignment (TAQ) was to give the student a feeling that he *needed* the tutor who was to have made it clear to him what initiatives he could take to succeed with the particular assignment and with the course as a whole. Lewis warns that the student must not get the idea that the tutor had made an unrealistic *demand* on his time. The checklist[*] and the *notes* accompanying the assignment must *pilot* the student towards a solution. The student must rest assured that the tutor will *monitor* the TAQ, and that he will get *feedback* in the form of a commentary-cum-assessment so that he will know which data were *relevant*, and which not, i.e. where his weaknesses were in his answer. On the other hand, the students' answers will also 'show up' weaknesses in the original assignment such as unnecessary *difficulties* introduced by the question, *problems* in the course material, and whether the tutor's notes were at all helpful to give *perspective* to the student (Lewis, 1984a : 71-73). ([*] A checklist is a list of questions against which a student can check progress towards carrying out a particular activity (Lewis, 1984a : 92).)

3.9 Ideals in perspective

The student feels a need to see his ideals in perspective. The realities of the relative "use" of his studies need to reveal themselves while he is confronted with his first assigned work, and more so, when he receives his first assessment.

3.10 Tutor's tasks

A special need of the student is to understand that the tutor has certain tasks to fulfil for all students, including himself. Genuine andragogic support depends to a great extent on the tutor's ability to perform the tasks of 'negotiating, contracting, liaising, informing, advising, monitoring, counselling, referring, *teaching*, assessing, coaching, disciplining, representing, feeding-back, evaluating, refereeing, coping with emotional attachment, identifying themes, personalizing, target-setting, immediacy, confronting, record-keeping and self-evaluation' (Lewis, 1984b : 89-90). You will have noticed that "teaching" almost disappears amongst the long list of tasks. In my opinion all the tasks in combination make up teaching *per se* which in turn, if *properly* done, spells out andragogic support. 'One way to view successful instruction is as a process that meets the fundamental needs of learners. When adults do not want to learn what we have to offer, it is quite probable that they either experience needs that interfere with the learning process or that our instruction neglects, satiates, or threatens their current need state ...' Therefore, the strategy of the tutor who is a genuine professional supporter, should be to 'use needs assessment techniques to discover and emphasize the felt needs (as well as) the normative needs of learners in the learning process' (Wlodkowski, 1985 : 105-111; own italics).

3.11 From need to desire

Like all people, distant students also live with an unending sense of need. A need felt at any time, e.g. when a first assignment must be attempted, will partly depend on the student's history of learning, his current perception of the problem, and his experience with the last need that was fulfilled, or not fulfilled. As long as the drive or desire for knowledge persists, the student will need the tutor's andragogic support.

4.0 ATTRIBUTES OF STUDENT

Since every student possesses a number of inimitable, unique attributes, he provides scope for the tutor.

4.1 Open possibility

The tutor may devote as much time and energy on a student as his time and own resources may allow, for the student is an open possibility who might rise to great heights.

4.2 Individuality

His unique, individual being has a value and worth in its own right. His essential individuality demands that his dignity be observed, and treated in a dignified manner.

4.3 Anxieties

It is natural that the student is anxious about the outcome of his efforts and his relationship with his tutor. He should not be seen as an object of fear, but as a subject worthy of support.

4.4 Willingness

The student is willing to improve himself, to try out something new in life, even if it means an uphill struggle. The tutor who respects this willingness, will support the student by giving of himself.

5.0 AIM OF ANDRAGOGIC SUPPORT

5.1 Introduction

The adult student requires his adult tutor's support for educating his total personality. Lewis pertinently points out that despite the student's adult status, in the specific situation in distance teaching, the student requires general support (1984b : 40-57) in the form of advice, counselling, being available, making regular and non-threatening contact with the student, building the student's confidence, and helping him to become more autonomous. General support, therefore, means seeing his role as wider than that of subject teacher; taking the initiative in making contact, communicating warmth across a distance; and working mainly with individual students. To ensure any amount of success in such a triple role, the tutor needs to be a skilled and relaxed communicator. Because the opportunity for face-to-face contact is rare, other communication means become vital.

Moreover, the study material must be given due attention by knowing them thoroughly, showing confidence in them, and advising students on how best to use them. Besides spiritual-mental support, this is the basis of adult-to-adult assistance. The needs of the individual student must be satisfied via the use of the study material. If necessary for enrichment or remedial help, extra material should be prepared or students could be guided in taking alternative routes through the material. Marking of students' work should be regarded as an opportunity for support beyond academic assessment, checking progress and conversing with the student. His strengths and weaknesses should be assessed, advice should be given, the tutor-student relationship should be consolidated, and the student should be goaded and stimulated into self-reliance and activated efforts in order to move beyond the idea of a passive learner leaning heavily on the endlessly supportive tutor.

5.2 Specific support

The distant student does not require material or academic support only, but needs to be oriented in truths, norms and meaning. For this reason Haagmann (1970 : 59) demands of the distance tutor more than pedagogic proficiency and high qualifications in his subject and subject didactics; he must himself have a good, diversified general education which he could transfer to his students.

5.3 Tutor in the dark

The tutor is not in a position to be au fait with his student's mental-spiritual make-up; therefore he must use every opportunity to derive such knowledge from the contact he makes in order to translate the student's needs into andragogic support.

5.4 Concerted effort

The aim of andragogic support should be based on a concerted, integrating effort to guide the student in stages (Lewis, 1984b : 11) from before the onset of the course until after the course, making use of every kind of learning experience — short or long, formal or informal as a means of focusing on the student's likely needs, noting his reactions and concerns.

5.5 Use of skills

One of the aims of giving adult support, is to use skills confidently. It is essential that the tutor shall attend to his student, observe him and listen to him, respond with regard to learning content as well as his feelings, question him and manage silence as well appropriate timing and pace (Lewis, 1984b : 90).

6.0 STUDENT PARTICIPATION

6.1 Willingness of student

Andragogic support cannot be actualized without the voluntary and willing participation of the student. To this must be added the manner in which he takes part (Snyder, 1972 : 27). The student's activity must not be marked by writing, attending or focusing on stimuli only but by recalling, analysing situations, making judgments, etc.

6.2 Tutor's activating strategy

The tutor must not do all the work while the student plays the passive recipient. Admittedly, says Snyder, the tutor is a teacher and facilitator (1972 : 47), and while he is respecting his students as individuals of worth and dignity, and is making conscious efforts to allay his students' potential fears, he should project a positive image of learning, and seek assistance from his students themselves to arrive at objectives. His activating strategy, therefore, includes involving his students in generating thinking, to prevent being spoonfed. The student must practise self-analysis as much as the tutor does.

6.3 Active participation by student

The tutor must entice the student into active participation by asking a self-assessment question (Lewis, 1984a : 93). This gives an opportunity that enables the student to prepare for a learning experience, tests his understanding of a particular point, and makes him enter into dialogue with the course writer.

6.4 Student advancing

The student's participation results in advancing in self-esteem, self-image, and self-excellence. Wlodkowski (1985 :50) maintains that the higher need of esteem can be fulfilled through competence and confidence, and is illustrated by the fact that the student is rewarded for outstanding performance. The higher need of self-actualization goads the student who is uncreative, attaching little meaning to life, to engage in work that embodies personal values and creative living, realizing a personal potential. This in itself encourages the student to more effective studying.

7.0 APPEAL BY STUDENT FOR ANDRAGOGIC SUPPORT

7.1 Andragogic support comes from academically superior fellowmen. Harris established (1975 : 22) that the majority of tutors are men, most of them between 30 and 60 years old, coming from some branch of the teaching profession.

7.2 Students are aware of their inadequacy, and that they are consequently in need of tutors to teach, guide and lead them (Harris, 1975 : 1).

7.3 The student's aim in appealing for support is to overcome his need of accompaniment, his wanting to find a partner in his lonely quest for improving his life-style in an attempt to design a better world.

8.0 MUTUAL INTERDEPENDENCE

8.1 The tutor also requires support in his exceptional distance-teaching situation which makes great demands on his imagining the student position and anticipating his reaction.

8.2 The student accepts the tutor's attributes : his superiority in more than the academic sphere only, his andragogic love, his genuine interest in his students' intellectual and spiritual advancement.

8.3 'Each area of instruction ... reflects the dual contributions of learner and teacher. The teacher helps the adult (learner) to translate his goals and aspirations into educationally meaningful experiences ... The underlying assumptions inherent in instruction for adults are drawn from the adult's ability to identify basic needs and interests. Likewise, the adult's (student's) experiences in living allow him to assume a greater role in determining what is needed, how it might best be achieved, and determining the utility of his educational efforts. Teachers of adults can capitalize on these distinctive adult (student) characteristics by combining these factors with their knowledge of how learning can best be facilitated. Techniques are used as a means to facilitate such learning in a way which promotes both short-term objectives and long-range goal achievement by the adults (students)' (Snyder, 1972 : 46).

8.4 The tutor's needs should be accepted and respected by the student.

8.5 Student and tutor mutually benefit from their reciprocal communication. Both benefit from the confidence in distance teaching. Sloos points out that this confidence is further strengthened as the distance-teaching institutions 'accept the ethical standards which have been the foundation of good education throughout the ages : vocation, self-sacrifice, and the love of truth. In the present context, love of truth must become the guiding principle in the advertising policy' (s.a., 13) of such institutions. The already-derived benefits for the tutors do, however, not suggest that the summum bonum has been achieved. 'From the study of motivation it can be seen that there is amongst many tutors a very lively interest in better teaching and in teaching in particular by correspondence' (Harris, 1975 : 55). This in itself improves tutor image, and the better this is, the more the student feels that he can rely on his tutor.

9.0 TUTOR TRAINING

The chief aim of tutor training is the improved rendering of andragogic support. The learning milieu is completely different, and the transition from classroom teaching to distance teaching is difficult. The tutor must be trained to accept his loss of a chance to perform, how to "address" an "absent" individual, and at the same time conduct mediated learning by means of preselected and prestructured content, not only in the role of a teacher, but in the role of a learning consultant engaged in general support orientation. His efforts are hampered by brief, intermittent contact with the learner, but he must take time by the forelock since this contact is, moreover, hard to schedule. Above all, the tutor has the problem of feeling a tendency to intervene in advance of the learner before he has had the opportunity to "declare" his problem (cf. Lewis, 1984b : 62). In other words, the distance tutor must assume a facilitatory role rather than a didactic one by concentrating more on the learner than on the content (p.63).

Specific issues in the training and development of a tutor are time and space, opportunities as such as well as opportunities to discuss distance-teaching problems with other tutors and specialists (Lewis, 1984b : 91). Training material may include manuals, newsletters, bulletins, supplementary materials, examination reports, occasional courses, and supervisory control by very experiencedtutors who themselves in this way, became more expert in good tutoring practice (Harris, 1975 : 47).

10.0 CONCLUSION

The andragogic situation of an adult giving support to another adult who is perhaps always physically absent, and possibly altogether unknown to him, offers exceptional problems which reach beyond the definable sphere of mastering the course content. Finding answers to the various needs of the distant student requires empathy as well as knowledge of the student's attributes, and the performance of a number of specific andragogically oriented tasks. Distance tutors find themselves, however, as yet in a backward position as far as andragogical reflection is concerned (cf. Nijk, 1973 : passim).

Knowing full well that student and tutor are reciprocally dependent on each other, the tutor strives to educate the student's total personality, and to develop himself as a professional tutor. The more expert the support is that he renders, the more the student benefits from his support.

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ADAPTING THE ORGANIZATIONAL STRUCTURE OF DISTANCE EDUCATION DEPARTMENTS TO MEET THE DEMANDS OF RAPID GROWTH

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1. Introduction

The Department of Quantitative Management was established in 1983 when the Operations Research section of the old Department of Statistics and Operations Research moved out of the Faculty of Science to the Faculty of Economic and Management Sciences to become a separate department. As explained in section 2 the motivation for this move was the perceived need for quantitative courses among students of business and commerce. During the past four years a full series of courses in Quantitative Management has been developed and implemented - from first year to major. We are currently busy with the honours and masters programme which begins next year.

This paper discusses the particular problems experienced by the new department resulting from the rapid growth in demand for persons trained in Quantitative Management, and the subsequent solution. The demand is discussed in section 2 whereas the problem itself is described in section 3. The solution, an organizational structure based on a relatively small core of full-time lecturers working in collaboration with a larger body of part-time lecturers, is explained in section 4. Its advantages and disadvantages are set out in section 5. Section 6 concludes the paper.

2. The Demand for Quantitative Management

The advent of the micro-computer has generated a huge demand for quantitative and modelling skills. Twenty years ago only very large organizations possessed computer facilities for automated information storage, processing and retrieval. Nowadays, however, the low cost of micro-computers and their remarkable capacity for data processing and storage makes it possible for even small organizations to have a wealth of information available to support their decision making function. Furthermore, the data manipulating ability of these machines, their so-called computing power, invites the use of a variety of advanced analysis techniques as a further aid to the decision maker.

Apparently this scenario implies a need for advanced programming skills. As I have argued elsewhere (Erens, 1984), this is not the case since communication with computers is becoming easier by the day. For example a profusion of user-friendly computer packages already exists and is being added to at a rate approaching the exponential. In other words the determining factor on our abilities to make full use of their potential is not communication, but knowledge of the battery of problem-solving techniques, strategies and models that are available. In short 'numeracy', in the most general sense of the word, is becoming as important as literacy.

Quantitative Management aims to provide the basic quantitative and modelling skills needed in the computer era. The demand for these skills is reflected in the growth of our student numbers, as illustrated in figure 1 which shows the full-time equivalent students registered for courses in Operations Research (OR) and Quantitative Management (QM) for the past four years. The introduction of the new course in Quantitative Management in 1984 is clearly exhibited by the corresponding 'jump' in the histogram.

3. The Problems of Rapid Growth

The growth in student numbers just described of course lead to a corresponding growth in the personnel points available for appointing new staff (shown in figure 2). Unfortunately the problem is not solved simply by filling posts.

In the first place the same demand that leads to an increase in student numbers gives rise to a scarcity of suitable academics. Well-trained competent quantitative managers receive considerable salaries in the private sector (as is indicated in a recent survey undertaken by the

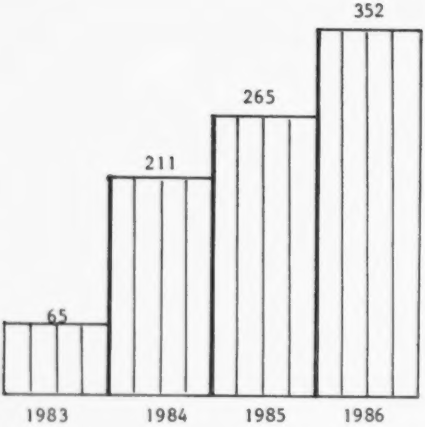


Figure 1 - Full-time equivalent students in OM/OR

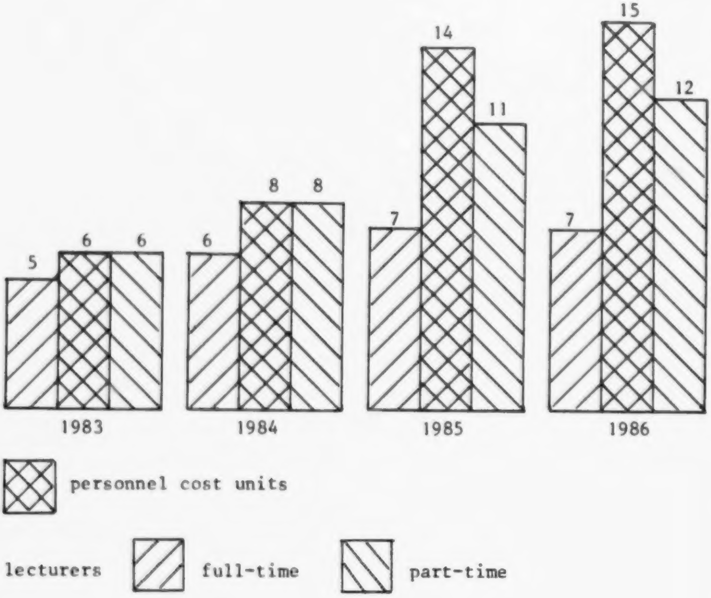


Figure 2 - Personnel cost units and lecturing staff in the Department of Quantitative Management.

Operations Research Society of South Africa (Evans, 1985)). Thus there is a dearth of suitable candidates for vacant posts and this is not likely to change in the near future.

In addition, even if suitable candidates can be fond, in general it is not easy to deploy them effectively during the first few years as they are not imbued with the philosophy and mores of the department. Ironically this is particularly a problem during the initial years of a department, since it is at this stage that most of the development work which will form the foundation for the department's future is being done. To inculcate in a newcomer the philosophy, views and approach of a department with regard to its subject and the teaching thereof is not simply accomplished by a statement of objectives - it takes time.

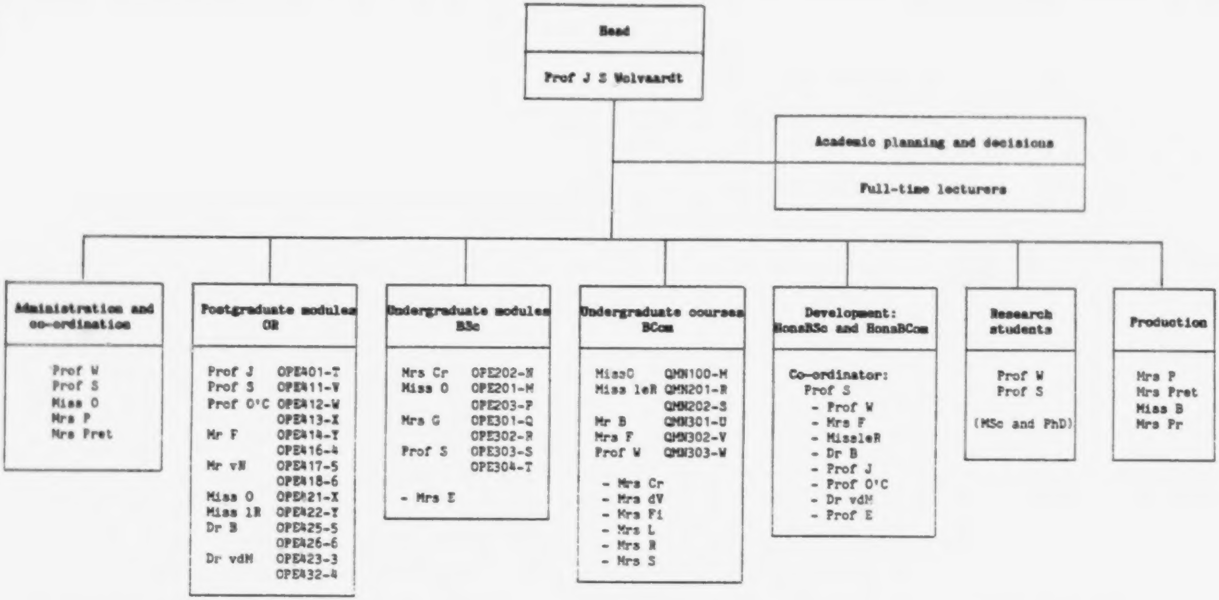
To sum up: In our field good academics are hard to come by and they cannot necessarily be immediately used for the all important development work which is our most pressing need.

4. The Solution

The solution is contained in the organization chart shown in figure 2 and is, ostensibly, quite simple - the majority of the lecturers working for the department are part-timers. Although the solution appears to be straightforward, and in essence it is, in practice there are a number of provisos.

In the first place an acceptable solution is not just to get the work done. The department insists on quality work in all facets of its teaching. This means that candidates for part-time work must be carefully vetted and monitored. Secondly the co-ordination required, and related administrative work, is not inconsiderable. The practices for undergraduate and postgraduate courses differ and are described separately below.

In the case of undergraduates the fact that Unisa is based in Pretoria is fortunate because it thereby has access to a considerable pool of well-qualified highly competent and motivated women who choose to spend five to fiteen years at home as mothers, but who nevertheless seek intellectual


Head
Prof J S Wolvaardt
Academic planning and decisions
Full-time lecturers
Administration and co-ordination
Prof W
Prof S
Miss O
Mrs P
Mrs Pret
Postgraduate modules OR
Prof J OPE401-T
Prof S OPE411-V
Prof O'C OPE412-W
OPE413-X
Mr F OPE414-Y
OPE416-4
Mr vN OPE417-5
OPE418-6
Miss O OPE421-X
Miss lR OPE422-Y
Dr B OPE425-5
OPE426-6
Dr vdM OPE423-3
OPE432-4
Undergraduate modules BSc
Mrs Cr OPE202-N
Miss O OPE201-M
OPE203-P
Mrs G OPE301-Q
OPE302-R
Prof S OPE303-S
OPE304-T
- Mrs E
Undergraduate courses BCom
MissO QMN100-M
Miss leR QMN201-R
QMN202-S
Mr B QMN301-U
Mrs F QMN302-V
Prof W QMN303-W
- Mrs Cr
- Mrs dV
- Mrs Fi
- Mrs L
- Mrs R
- Mrs S
Development: HonsBSc and HonsBCom
Co-ordinator:
Prof S
- Prof W
- Mrs F
- MissleR
- Dr B
- Prof J
- Prof O'C
- Dr vdM
- Prof E
Research students
Prof W
Prof S
(MSc and PhD)
Production
Mrs P
Mrs Pret
Miss B
Mrs Pr

Full-time lecturers

Prof W : Prof J S Wolvaardt
Prof E : Prof G Erens*
Prof S : Prof P Salemink
Miss O : Miss I Olivier
Mrs F : Mrs E Ferreira
Miss leR: Miss J le Roux
Mr B : Mr J Burger
Mrs G : Mrs E Grobler

*Sabbatical

Full-time administrators

Mrs P : Mrs E E Pieters
Mrs Pret : Mrs E A Pretorius

Freelance: Typing, technical

Miss B : Miss E Botha
Mrs Pr : Mrs G Pretorius

Part-time lecturers
Postgraduate

Dr B : Dr P J Becker
Prof J : Prof J W Grobbelaar
Prof O'C : Prof R A O'Connell
Dr vdM : Dr C A van der Merwe
Mr vN : Mr J N van Niekerk
Mr F : Mr R J Fossati

Part-time lecturers
Undergraduagte

Mrs Cr : Mrs R Cruywagen
Mrs dV : Mrs G M de Villiers
Mrs E : Mrs T Evert
Mrs Fi : Mrs T Fick
Mrs L : Mrs B Loubser
Mrs R : Mrs S Rothmann
Mrs S : Mrs M C Strydom

FIGURE 3. QUANTITATIVE MANAGEMENT - ORGANIZATIONAL STRUCTURE 1987

stimulation and an income. By well-qualified I mean in this instance an honours or masters degree in an appropriate subject such as Operations Research or Statistics. Each undergraduate course in Quantitative Management has assigned to it one or more part-time lecturers (depending on the size of the course) who put in from ten to seventeen hours per week for ten months of the year. They do not work independently but under the guidance of the full-time lecturer who is responsible for the course. Nevertheless they are not just assistants who mark assignments but form an integral part of the lecturing team, contributing not only to assignments but also to study material and examination papers. They generally visit the lecturer concerned once per week for assessment of the work. One senior lecturer is responsible for overall co-ordination of these part-timers as well as the identification of suitable candidates and their re-appointment from one year to the next.

For postgraduate courses the arrangement is different. In this case the numbers of students registered for the courses are small (five to twenty) and it is possible to contract one person to take full responsibility for the whole course - from tutorial letters, study guide and text book to the examination. In all cases the person contracted is a specialist in the relevant field. The restriction to part-timers resident in Pretoria does not apply in this case - in fact one of our stalwarts resides in Cape Town - as long as the lecturer concerned can be reached by students telephonically. Thus in this case the potential pool of lecturers is countrywide. Nevertheless the majority do reside in Pretoria and two even have an arrangement with their permanent employers whereby the spend one day per week at Unisa.

One essential requisite for a structure of this type, in which the majority of the lecturers are not present on the campus, is co-ordination. Although in theory this may be the task of the departmental head in practice it is the job of the secretary to ensure that the administrative matters such as the timeous submitting of tutorial letters and examination papers proceed without a hitch. Furthermore with all the developement work, associated with the rapid growth of the department, there is an unusually high component of secretarial work to be done, particularly since the department produces all its own study material, guides and letters, as manuscripts ready for press. Fortunately we have two highly competent full-time secretaries who help to lighten the burden of administrative tasks which would otherwise fall upon the full-time lecturers. In fact at times we even make use of an additional part-time typist.

5. The Advantages and Disadvantages of the System

As tabled below the advantages of the system are many. In my experience the disadvantages are few and of minor consequence. The obvious one is that the part-time lecturers are not generally at office although as mentioned above, many do come in each week. As long as they can be reached telephonically, which is a condition of their appointment, their absence presents no real problem. The other is, as stated, that most of the administrative load is concentrated on the full-time staff members. But, as indicated, the judicious use of competent full-time secretaries alleviates this problem.

Apart from the obvious advantage of augmenting the full-time lecturers, which the use of part-time lecturers is intended to do, the system has many other advantages.

(i) Foremost among these is that it frees a number of the full-time staff members to a large extent so that they are available for course development at present and ultimately research. Without the assistance of the part-time lecturers it would have been impossible for the department to introduce the Quantitative Management course at the rate at which it has been done.

(ii) Since the number of full-time lecturers is small, and is likely to stay small (i.e. less than ten), it is possible to adopt a very informal management style in the department. Generally all members partake informally in course development and other departmental affairs around the tea-table as the need arises.

(iii) One great advantage at the postgraduate level is that it makes it possible for the department to offer specialist courses in fields outside the domain of expertise of the full-time lecturers. In fact we like to boast about our 'super-senior lecturer' who has four PhD's and seven Master's degrees and who offers a total of six modules (which is the equivalent of three full honours courses). In fact due to their particular expertise several of the postgraduate part-time lecturers have been further contracted to develop courses for the new honours and masters programmes. Without them the introduction of these programmes would not be possible.

(iv) The system is highly cost-effective. In the case of the postgraduate courses just mentioned the formulae is that we offer three courses (or equivalently six modules) against one senior lectureship. This means that for offering a course (or two modules) an outside lecturer receives $\frac{1}{3}$ of the annual salary of a senior lecturer (calculated at the maximum notch). Since there are no research or other university obligations attached this means we get three courses (or six modules) for the price of one senior lectureship. No single full-time lecturer could achieve this. And from the university's point of view it is doubly cost-effective since there are not overheads such as pension and medical contributions, which generally amount to some 40% of basic salary, nor does an office have to be provided. (All the part-timers share one office.) For the undergraduate part-timers the formulae is slightly different. All are appointed on a lecturer's scale (at the maximum notch) for ten months of the year but the amount received depends on the hours per week. For example someone working fifteen hours per week will receive $\frac{15}{40}$ of a lecturer's salary for the ten months.

(v) The system enhances productivity. As is pointed out by my colleague elsewhere (Wolvaardt, 1985) the only only realistic way in which an academic department can increase productivity (i.e.

the only way which is within its control) is by cutting costs. As pointed out this system cuts overhead costs dramatically, hence increases productivity accordingly.

(vi) The fact that the part-time lecturers are re-appointed each year is a definite advantage to the department since it introduces a flexibility into the system which would not otherwise be there. More specifically it allows the possibility of not making certain reappointments if this is deemed necessary. For example I pointed out above that the department puts a heavy emphasis on quality - if a part-time lecturer does not come up to standard he/she is simply dropped from the team in the following year. Although this has not happened frequently it has been resorted to on occasion at both undergraduate and postgraduate level.

(vii) Finally the pool of part-time lecturers can serve as a source of candidates for full-time posts. On the one hand the candidates are no longer unknown quantities to the department, while on the other they are already well acquainted with the philosophy, procedures and processes of the department. In fact one previous part-time lecturer has already been appointed to the full-time staff.

6. Conclusion

It has been argued that the system of an organizational structure based on a relatively small core of full-time lecturers supported by a larger body of part-time lecturers is not only a solution to the short term problem of not being able to find adequate full-time staff, but in fact holds many advantages which make the system viable as a permanent alternative departmental structure for the distance education environment.

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